SAN FRANCISCO DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102

DRAFT

ENVIRONMENTAL IMPACT REPORT

EE 75.60

505 Sansome Street Building
Sansome and Clay Streets
San Francisco, California

Review Period

July 9 to August 12, 1976

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SUMMARY

The proposed project is a 17- to 18-story office building (plus penthouse) to be located at the northeast corner of Sansome and Clay Streets in downtown San Francisco. The anticipated daytime occupancy of the building would be 1,015 to 1,065 employees. Gross floor space would be 183,182 to 191,957 (maximum allowable) square feet; no parking facilities would be provided on the site.

A four-story structure and two smaller buildings now on the site would be demolished prior to construction of the new building.

Implementation of the project would increase energy consumption on the site, block views from the 5th to 18th stories of adjacent multi-story buildings, and cause increases in traffic and air pollution, as well as in wind levels on Clay and Merchant Streets.

Measures proposed to mitigate the project's impacts include creating additional pedestrian space on site, facilitating the flow of pedestrians through the building, and providing no parking facilities in order to promote transit use.

Alternatives discussed in the report include no development, lower intensity of site use, design alternatives, different

types of development, such a hotel, church, school, or theater, which would be permitted in the C-3-O zone, and residential use, which would require a conditional use permit.

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TABLES

I. PROJECT DESCRIPTION

A. LOCATION (Figure 1)

The proposed project would be located on an 89.08' by 122' parcel fronting Sansome Street between Clay and Merchant Streets (northwest corner of Clay and Sansome), in downtown San Francisco. The Assessor's number for the site is Block 207, Lots 3, 4, 5.

B. OBJECTIVE OF THE APPLICANT

There is currently a demand for office space in San Francisco.[1] In view of this, MSC Associates propose to create a maximum of 163,165 assignable square feet (asf) of modern office space in downtown San Francisco to assist city firms in finding quarters in which to conduct their business and to obtain a profit on a real-estate investment.

C. PROJECT CHARACTERISTICS

The proposed 505 Sansome Street Building is a basically rectangular structure, with the upper floors overhanging the first two stories. Exterior dimensions of the mass of the building are 122'-0" x 89'-9". The building would be either 17 or 18 stories plus a penthouse. The smaller of the two options would be 237'-0" tall and have a floor space of 183,182 gross square feet (gsf) (155,705

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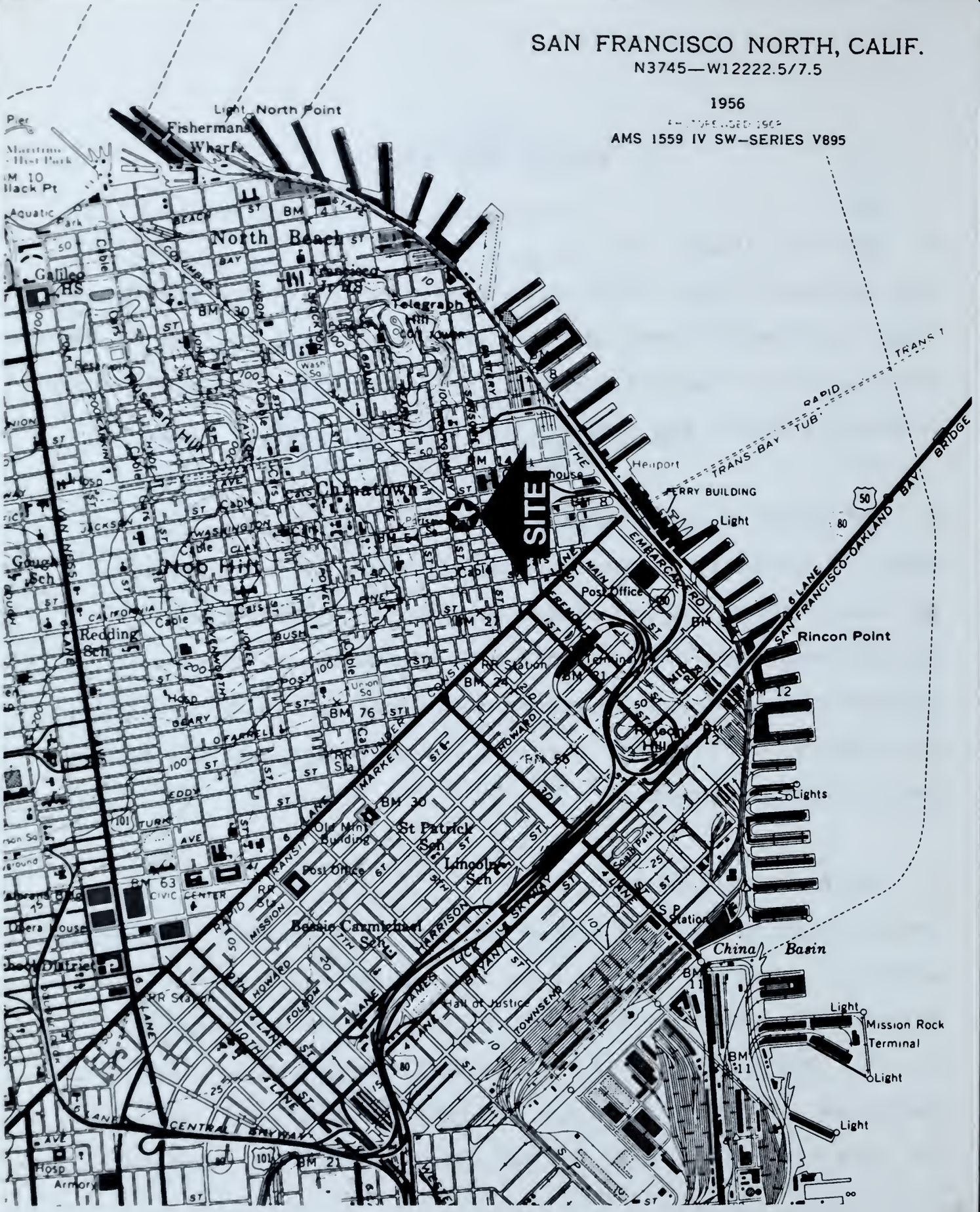
[1] An October 1974 survey showed a 92 percent occupancy rate for downtown San Francisco office space (old and new buildings); Building Owners and Managers Association, "Office space occupancy survey," October 1974.



Site Location

FIGURE 1

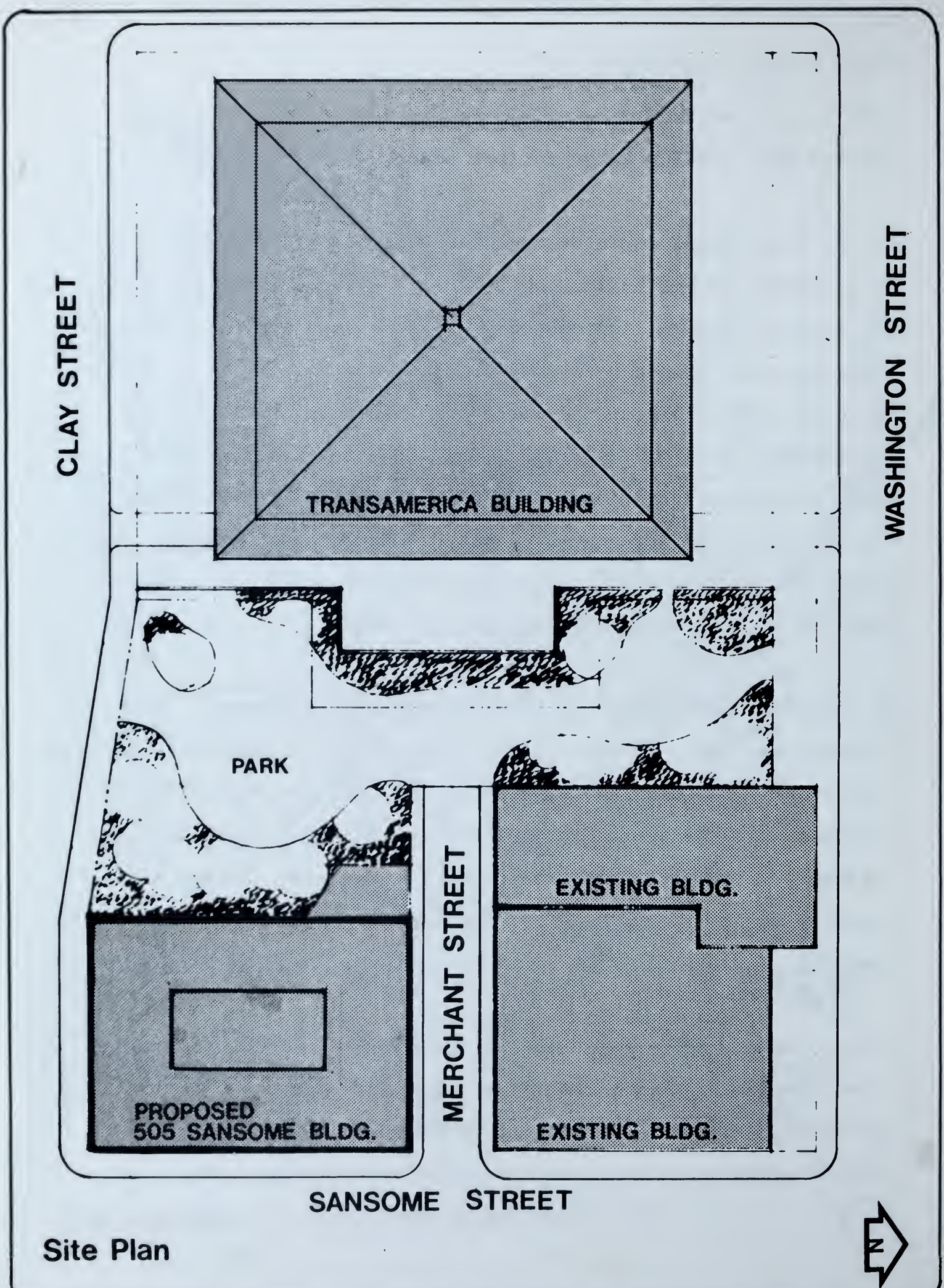
asf); the larger would be approximately 249'-0" tall and have 191,957 gsf (163,500 asf) of floor space.

As the floor plans and elevations show (Figures 2-9), the first three floors of the building would be recessed and not built out to the sidewalk lines on Clay, Sansome, and Merchant Streets. A basement would open onto a lower plaza on the west side of the building. The slope of the earth berm would be continued into the basement level plaza (Figure 8), with the area above the plaza open to the fourth floor level. Access to the building would be provided from Sansome, Clay, and Merchant Streets. A continuous walkway opening into the building would run around the east, south, and west sides of the building.

At least two restaurants, a bar, and small retail shops (news, tobacco) are among the anticipated uses of the basement, first, and second floors. A rental area on the southern half of the building would be available to a single client (e.g., a bank or a larger retail store) who would use the basement, first, and possibly second floors. Retail space would total 12,000 square feet.

Surface material for the building has not yet been chosen; final determinations would be made at a later date, in consultation with the staff of the San Francisco Department of City Planning. Permits would be sought from the Department of Public Works to

(text continues on page 12)



Site Plan

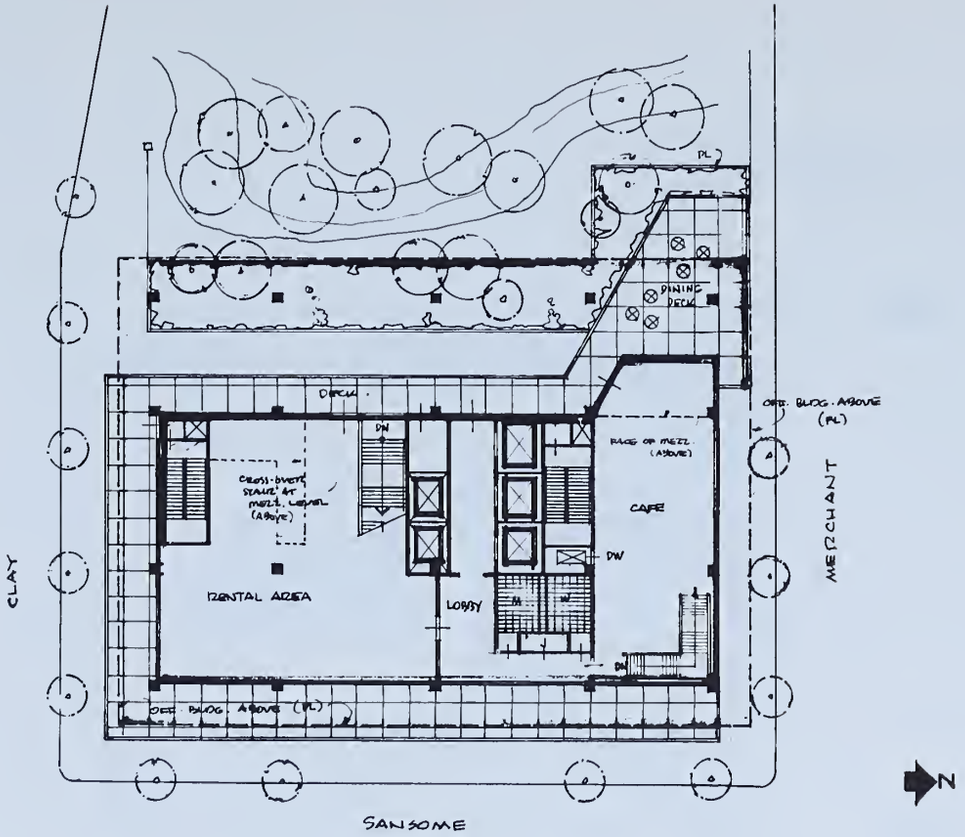
FIGURE 2

BASEMENT (PLAZA) LEVEL
N
OPEN ABOVE
SUB-BSMT. BELOW
PROP LINE
BLDG. ABOVE
PLANTER
PLANTER
BMC ABOVE
LOWER PLAZA
OPEN TO ABOVE
KITCHEN
DW
DW
RESTAURANT
LOBBY
DENTAL AREA
PROP. LINE

FIGURE 3

LOBBY FLOOR LEVEL (1ST FL.)
N
MERCHANT
SANSOME
CLAY
EXISTING BW PATIO
OPEN TO PLAZA BELOW
BASE WALKWAY
RENTAL AREA
LOBBY
OPEN TO BELOW
BIKE RACK

FIGURE 4

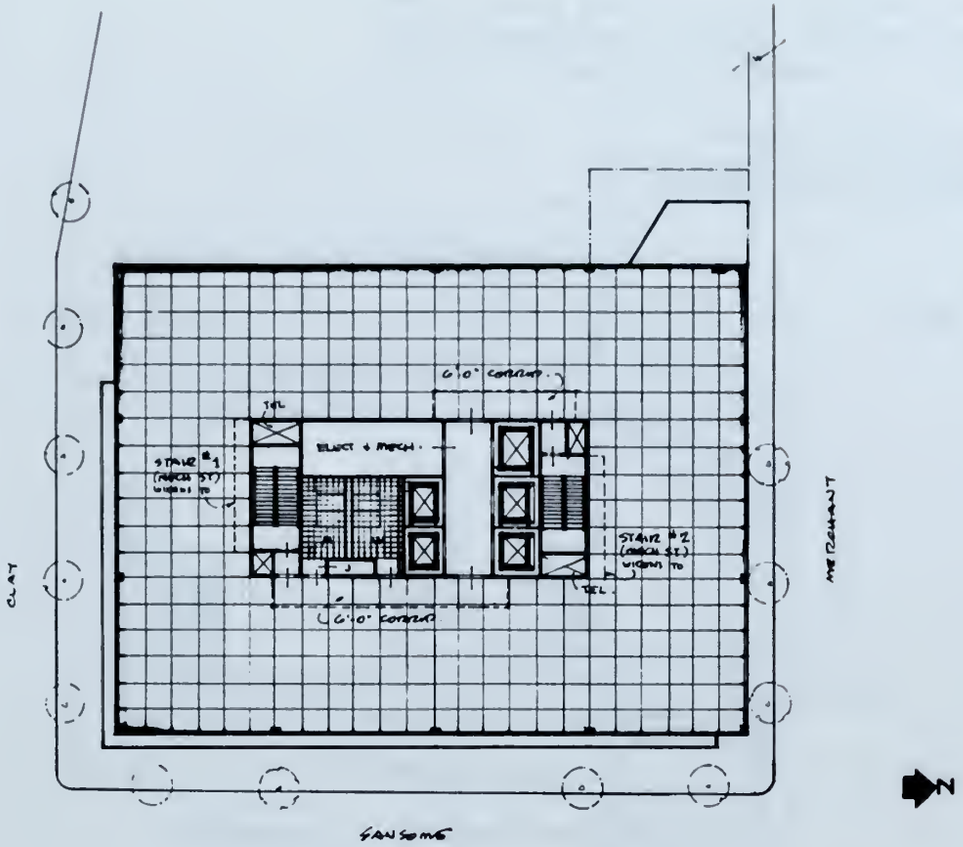


BALCONY FLOOR LEVEL (2ND FL.)

(MEZZANINE LEVEL SIMILAR : 3RD FL.)

The overhanging walkway, to conform to code requirements, could not be built as shown, but would have to be broken or segmented.

FIGURE 5



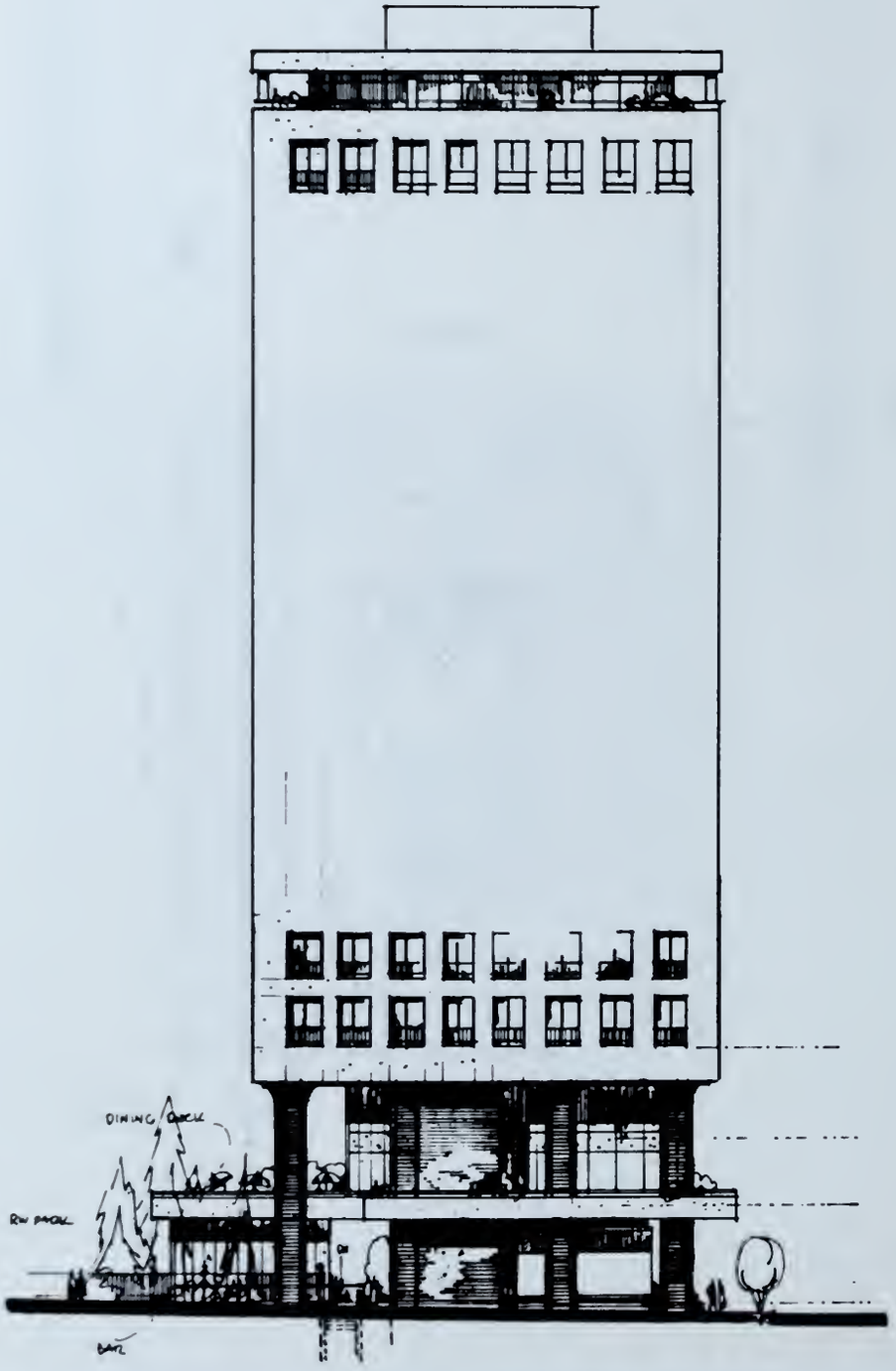
TYPICAL OFF. FLOOR (4 THRU 17 FL.)

10,800 SF GROSS AREA (±)

FIGURE 6

PENTHOUSE LEVEL (18TH FL.)
N
MERCHANT
CLAY
SANSOME
ROOF LINE
ROOF BELOW
TERR.
LOUNGE
BAR
PRIV. GLASS TO R. BELOW
ELEV. P.H.
MECH. P.H.
OFFICES
M
W
TERR.
PANEL BELOW

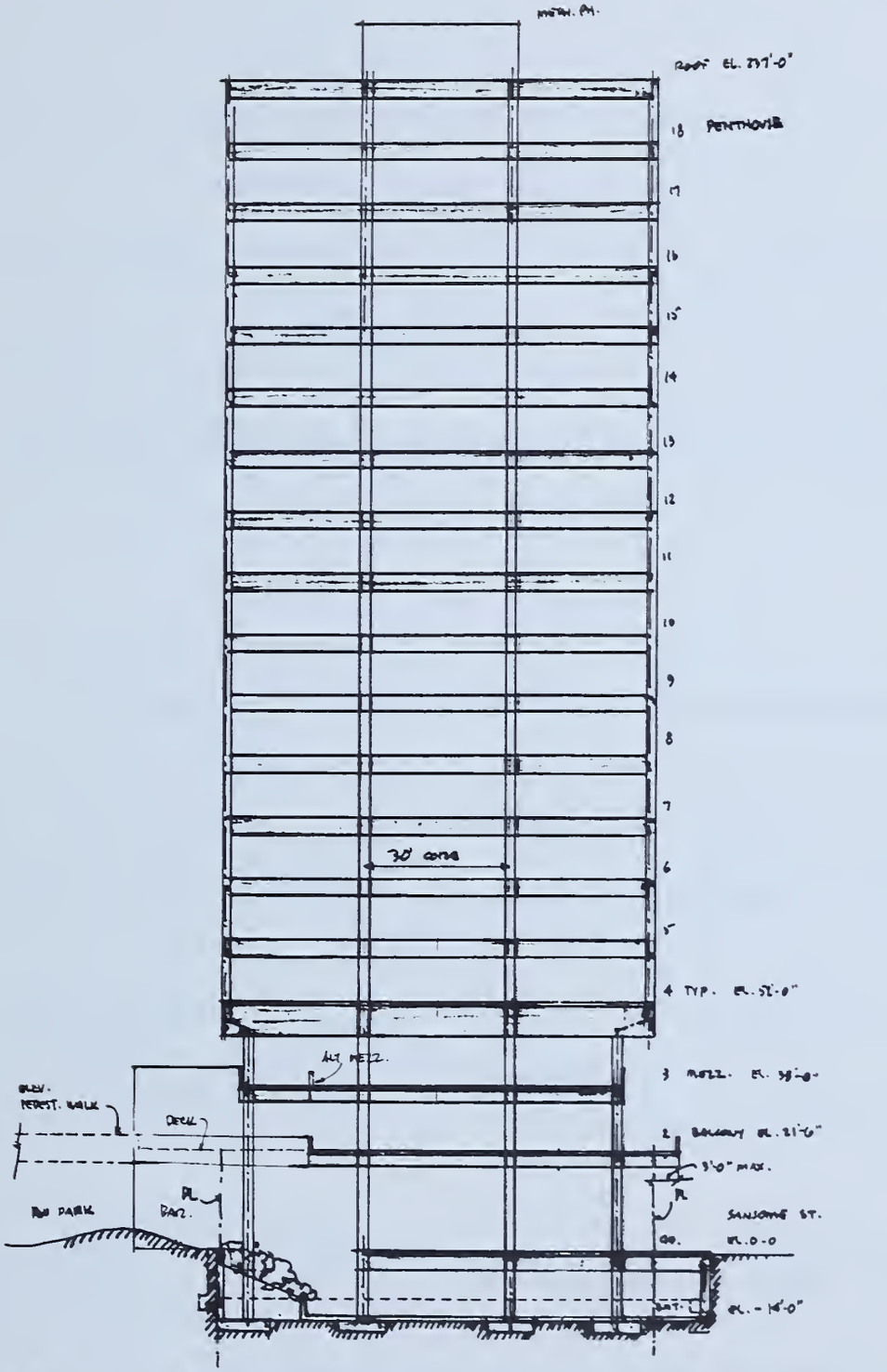
FIGURE 7



DESIGN STUDY
505 SANSOME ST. S.F.

CLAY ST. ELEVATION
1/16" = 1'-0"

FIGURE 8



DESIGN CRITERIA
505 SANSOME ST. S.F.

SECTION
1/16" = 1'-0"

FIGURE 9

provide street trees on Clay, Sansome, and Merchant Streets in accordance with recommendations by the Department of City Planning staff.

No parking facilities would be provided for the anticipated 1,015 to 1,065 employees.[1] The service entrance for trucks would be on Merchant Street with no off-street loading dock (see page 63). The only change in curbing would be to stripe a white passenger unloading zone adjacent to the Sansome Street entrance.[2] This curb alteration would take the place of a present curb cut, and therefore no on-street parking would be displaced.

Project development costs, including property acquisition, building construction, and financial, marketing, architectural, and engineering fees, would exceed 9.2 million dollars. Projected costs to tenants would be more than $10/square foot/year.

The four-story Niantic Building and two smaller buildings now occupying the site would be demolished to accommodate the proposed project.

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[1]Based on the assumption of 150 assignable square feet per employee.

[2]Requests for changes in curb striping are made to the San Francisco Police Department, Division of Traffic Control. If the request is approved, it is turned over to the Department of Public Works for implementation.

D. PROJECT SCHEDULE

The project is planned to begin during 1976 (pending approval of all required permits). Construction (including demolition of existing structures) would last about two years, as shown in the table below.

Construction Timetable

Construction Phase	Time Period
Demolition	3 weeks
Excavation and shoring	5 weeks
Pile driving	6 weeks
Superstructure	14 months
Systems, finishing, and interior[1]	6 months
Total	23½ months

E. RELATIONSHIP TO LOCAL AND REGIONAL PLANS

The project lies within the C-3-0 Use District (Downtown Office). As stated in the City Planning Code:[2]

> This district, playing a leading national role in finance, corporate headquarters and service industries, and serving as an employment center for the region, consists primarily of high quality office development. The intensity of building development is the greatest in the city. . . .Office development is supported by some related retail and service uses within the area. . . .

The proposed project conforms in use with this Code provision.

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[1]Interiors are finished as individual office spaces are rented; this sometimes continues for several months after the building is occupied.

[2]San Francisco Municipal Code, Part II, Chapter II, City planning code, Section 210.3, July 1, 1974, p. 59.

The project is compared with allowable limits of the 300-H Height and Bulk District below:

	Project	(Allowable 300-H District)
Height	237' (18-story)	300'
Length	122'	170' (above 100')[1]
Diagonal Dimension	150.5'	200' (above 100')[2]

The project site is unique in that it lies within a transition area between the downtown financial core and the Jackson Square area -- both very distinctive and different in character. This transition zone, known as Portsmouth Corridor (see Figure 10, Zoning Map), is bounded by Kearny, Washington, Davis, and Clay Streets. In recognition of the public importance of this area, the San Francisco Planning Commission requires a Discretionary Review[3] of applications for any new or enlarged buildings in the area.[4] In this review particular attention is paid to views that would be created or blocked, relationships to other properties,

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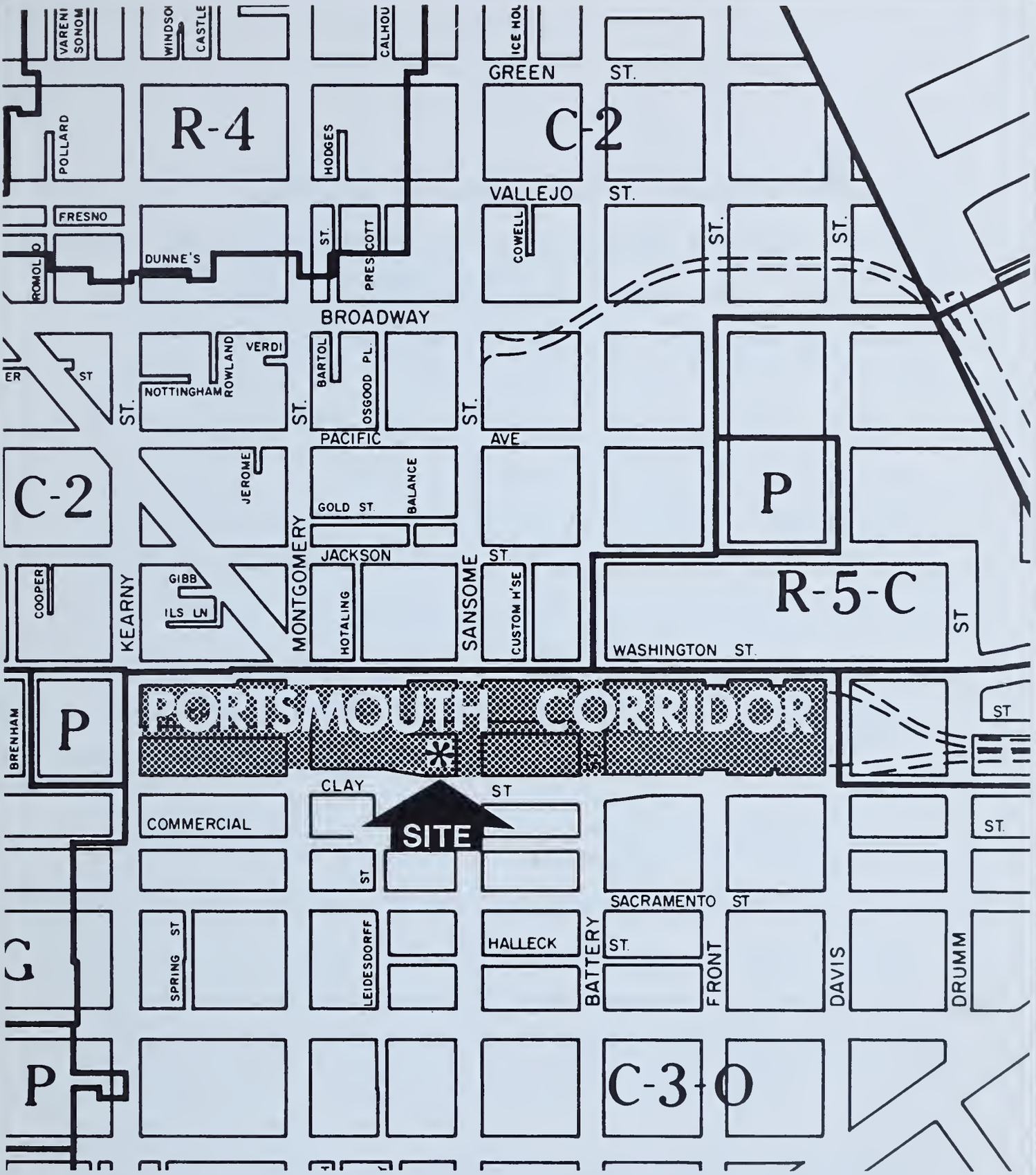
[1,2]These dimensions are not applicable, since they exceed the dimensions of the site.

[3]Discretionary Review is a power of the Planning Commission under the Charter and the Municipal Code with respect to any building permit application that enables the Planning Commission to exercise its sound discretion to determine that the proposed project will not be detrimental to nearby properties or to the City as a whole.

[4]San Francisco City Planning Commission, Resolution 6112, June 29, 1967.



C-3-0 Downtown Office

C-2 Community Business

R-5-C Residential-Commercial

R-4 High Density Multiple Residential

P Public Use

Zoning Map

FIGURE 10

potential development of the area as a unified whole, relationships to Washington and Clay Streets, and effects on the Jackson Square area. Other design decisions (e.g., surface treatment, landscaping) would be finalized before this review.

II. LOCAL AND REGIONAL ENVIRONMENTAL SETTING

A. PRESENT PHYSICAL ENVIRONMENT

1. Topography, Geology, and Soils

The proposed office building would rest on a level site, elevation four feet above mean sea level. The site was originally a shallow part of San Francisco Bay (Yerba Buena Cove) that was reclaimed by filling with sand and rubble. Considerable settlement of the Bay fills has taken place in the hundred years since the area was reclaimed. Slight or no settlement has been observed in this area within the past fifteen years,[1] although in the event of an earthquake, subsidence is always a hazard where there is fill underlain by compressible Bay muds.

Bedrock (shale and sandstone of the Franciscan Formation[2]) lies approximately 190 feet below the ground surface. The overlying sediments have been deposited over the past two million years. Clay and sandy clay layers are found nearest the bottom (85 to 190 feet below the surface), dense sands and clayey sands pre-

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[1]Dames and Moore, "Foundation investigation, proposed Clay Street office building, San Francisco California, for Wells Fargo Bank," June 30, 1967.

[2]A complex assemblage of various rock types, predominantly sedimentary but also volcanic and metamorphic, named for San Francisco, where it occurs in extensive exposures.

dominate between 50 and 85 feet, the compressible younger Bay muds[1] lie between 20 and 28 feet, and fill and moderately compressible silty sands make up the top 20 feet.[2]

2. Seismicity

The project site is in a seismically active area, as is most of the California coastal region. Owing to the existence of poorly-consolidated sediments (i.e., younger Bay mud) underlying the site, seismic shocks can be expected to be more intense here than at sites on better consolidated sediments or bedrock. The thickness of this younger Bay mud is less than that in other built-up areas in San Francisco.

According to the Blume Report,[3] the site is located in a "very strong" shaking zone (estimated intensity of future ground shaking with earthquake intensity equal to that of the 1906 quake).

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[1]These sediments consist mostly of very fine soil particles existing in the presence of much water (50 to 60 percent water is common). They are very loosely packed and therefore consolidate or compress easily.

[2]Dames and Moore, "Clay Street office building."

[3]John A. Blume and Associates, Engineers, "Seismic safety investigation," San Francisco, June 1974.

The site is in an area of potential soil liquefaction (whereby the soil material becomes fluid-like) in the event of a significant earthquake.[1]

The San Andreas fault zone passes ten miles to the southwest of the project site and the Berkeley-Hayward fault lies about ten miles to the northwest. According to the California Department of Water Resources,[2] between 1934 and 1961 ten earthquakes were recorded that were 4.0 or greater on the Richter scale[3] and had epicenters within 20 miles of the site. They are summarized below.

Location	Date	Magnitude
Montclair	Mar 1937	4.5
San Leandro	Dec 1942	4.3
East Oakland	Oct 1952	4.2
Albany	Oct 1952	4.0
San Leandro	Dec 1954	4.5
South San Francisco	Mar 1957	4.4
Daly City	Mar 1957	4.0
Daly City	Mar 1957	5.3
Gulf of Farallones	Mar 1957	4.2
Gulf of Farallones	Dec 1958	4.7

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[1]John A. Blume and Associates, Engineers, "Seismic safety investigation," San Francisco, June 1974.

[2]California Department of Water Resources, Crustal strain and fault movement investigation, Bulletin 116-2, January 1964.

[3]The Richter scale is a logarithmic scale developed by Charles Richter to measure earthquake magnitude by the energy it releases, as opposed to earthquake intensity as determined by effects on people, structures, and earth materials (modified Mercalli scale).

Early major earthquakes in the immediate Bay Area were the 1906 earthquake (magnitude 8.3), centered at Olema, and three during the nineteenth century. Two registered 7.0 on the Berkeley-Hayward fault and one registered 7.0 on the San Andreas fault.[1]

3. Microclimate

Sunshine at the site is limited during most of the year by the presence of large structures to the south. In winter the entire site is virtually without direct sunshine. In spring and fall, short periods of sunshine occur in late morning and the afternoon along the east side of Sansome Street near Merchant, while Clay is totally in shade. In summer, Sansome is sunlit for several hours in the afternoon; Clay is sunlit only in the late afternoon.

Winds on the site were investigated in a wind-tunnel study, described in the Microclimate Impact Report (Appendix A). They were found to be generally light to moderate because of the sheltering of nearby structures. The windiest areas were Clay and Merchant Streets. Winds along Sansome Street and in the Transamerica Redwood Park were generally light.

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[1]California Division of Mines and Geology, Crustal movement investigation in California, Special Publication 37, 1972, p. 2.

The results of the microclimate study showed that the frequency of human discomfort on the site is moderate compared to other areas in San Francisco. The least comfortable areas are Clay and Merchant Streets, where winds are moderate and there is no sunshine. Both Sansome Street and Redwood Park have lower discomfort frequencies due to more sunshine and lighter winds.

4. Air Quality

Persistent summertime winds, and San Francisco's upwind position with respect to major pollutant sources, combine to give San Francisco possibly the cleanest air in the Bay Area. Occurrences of pollutants exceeding air quality standards in 1974 are shown in Table 1.

5. Noise

The noise environment at the site is dominated by traffic on Sansome and Clay Streets. The background noise levels are maintained by human activity and cars; peak noise levels are caused by trucks.

Noise measurements taken on January 23, 1975, show that during the midday hours the ambient noise level is about 65 dBA.[1,2]

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[1]The dBA is a unit of sound energy on a logarithmic scale weighted to correspond approximately to human perception of sound, making it possible to compare common urban noise levels.

[2]Measurements were made in accordance with Sections 2901-2902 of Article 29, Part II, Chapter VIII, Section 1, San Francisco Municipal Code.

TABLE 1

Number of Days Air Quality Standards Were Exceeded in San Francisco, 1974[1]

Month	Carbon Monoxide[2]	Oxidants[3]	Nitrogen Dioxide[4]	Sulfer Dioxide[5]	Particulates[6]
January	1	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	1
June	0	0	0	0	0
July	0	0	0	0	1
August	0	0	0	0	0
September	0	0	0	0	0
October	0	4	0	0	1
November	0	0	0	0	1
December	0	0	0	0	0

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[1]California Air Resources Board, California air quality data, Vol. VI, Nos. 1-4, 1974.

[2]Federal standard is 9 ppm (8-hour average).

[3]Federal standard is 0.08 ppm (1-hour average).

[4]California standard is 0.25 ppm (1-hour average)

[5]California standard is 0.10 ppm (24-hour average)

[6]California standard is 100 micrograms per cubic meter (24-hour average), measured every third day.

Noise levels during evening and early morning hours are considerably lower.

Figure 11 shows comparative noise levels of common activities and settings.

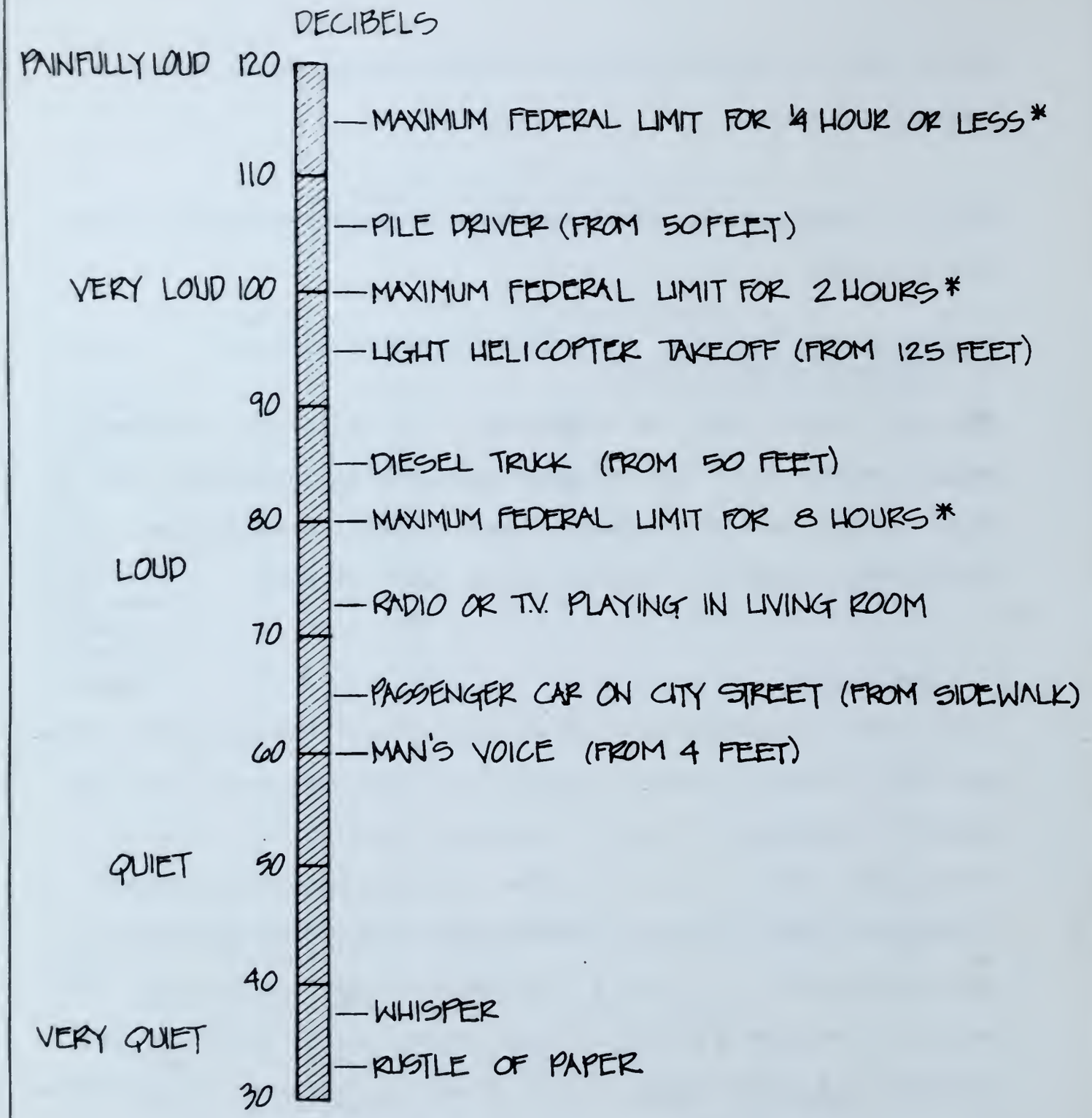
6. Vegetation and Animals

The site itself does not contain any visible natural or landscaped vegetation. The adjacent minipark is landscaped and typical urban microorganisms, insects, small mammals, and birds are expected to be associated with the park.

7. Aesthetics

Three older buildings are now on the site of the proposed office building: the four-story Niantic Building (see page 30), the adjacent building to the west occupied by King Tut's Hut, a restaurant; and to the north, the recently renovated restaurant Stone Soup. The site is bounded on the west by the Transamerica Pyramid and borders the Transamerica Redwood Park. The scale of the area is transitional--high-rise to low-rise--and visually and functionally highly urban in character (see Figures 12 and 13, Site Views).

Across Clay to the south is the Wells Fargo World Headquarters Annex, 20 stories high and modern in construction. The other corners of the intersection are also occupied by high-rise



*REGULATIONS PROMULGATED UNDER THE AUTHORITY OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, SECTION 1910.95, OCCUPATIONAL NOISE EXPOSURE, FEDERAL REGISTER, VOL. 36, NO. 105, MAY 29, 1971, PAGE 10518.

Typical Noise Levels

FIGURE 11

From Transamerica Building Looking Southeast

Corner of Sansome and Clay Looking Northwest

Site Views

FIGURE 12

Clay Street Looking East

Above Washington Street Looking Southeast

Site Views

FIGURE 13

structures and this, with the narrow streets, creates the familiar downtown urban character of the setting. The spaces are linear and vertical and for most of the day are in deep shade from the shadows cast by the tall buildings of the financial district south of Clay. Immediately north of the site are some higher structures directly across Merchant Street; then the skyline drops down to the two-, three-, and four-story buildings of the Jackson Square area (see Figure 14).

Views from the site are possible above ten stories and then only to the north and east, toward the Alcoa Building and the Bay.

Surrounding Buildings
Heights and Construction Dates

FIGURE 14

B. PRESENT SOCIAL ENVIRONMENT AND PUBLIC SERVICES

1. Land Use

Three buildings now occupy the project site (Figures 12 and 13). The largest is the four-story Niantic Building, built in 1907. Two smaller (two-story), narrow structures, one fronting on Clay Street, the other on Sansome, cover the remainder of the property.

Current site use includes two restaurants, King Tut's Hut and Stone Soup; Waldeck's (office supplies); Lovotti Brothers (building maintenance), General Office Systems (office supplies), International Society of General Semantics (office), Mark III Color prints (photo lab), Exposure (printing/photography), Timely Typography (secretarial service), and Aspen Graphics (photo lab).

The project site is surrounded by high-intensity commercial (office) use. To the west of the site is the Transamerica Pyramid (853'); to the south, the Wells Fargo Building (275'); to the southeast, the Insurance Center Building (195'); to the east, the 500 Sansome Street office building (106'); and to the north, the 545 Sansome Street office building (104'). The lower-intensity C-2 District (Community Business), with its variety of shops and services, begins just north of Clay Street.

The nearest residential use is the Golden Gateway complex at Washington and Battery Streets, two blocks away (see Figure 15, Land Use Map).

2. Historical and Archaeological Resources

The early history of the site is best conveyed by an historical plaque placed on the site by the Native Sons of the Golden West. It reads:

Site of Ship Niantic

> The emigrant ship Niantic stood on this spot in the "early days when the water came up to Montgomery Street." Converted to other uses, it was covered with a shingle roof and offices and stores on the deck, at the level of which was constructed a wide balcony surmounted by a veranda. The hull was divided into warehouses entered by doorways on the sides.
>
> The fire of May 3, 1851 destroyed all but the submerged hulk which later was utilized as the foundation for the Niantic Hotel, a famous hostelry which stood until 1872.
>
> This tablet was placed by the Historic Landmark Committee of the Native Sons of the Golden West, September 19, 1919.

The present Niantic Building was constructed in 1907. During the excavation for its foundations, many artifacts from the previous site use were uncovered (e.g., timbers, glassware, and even full bottles of wine).[1] The Niantic Building is not

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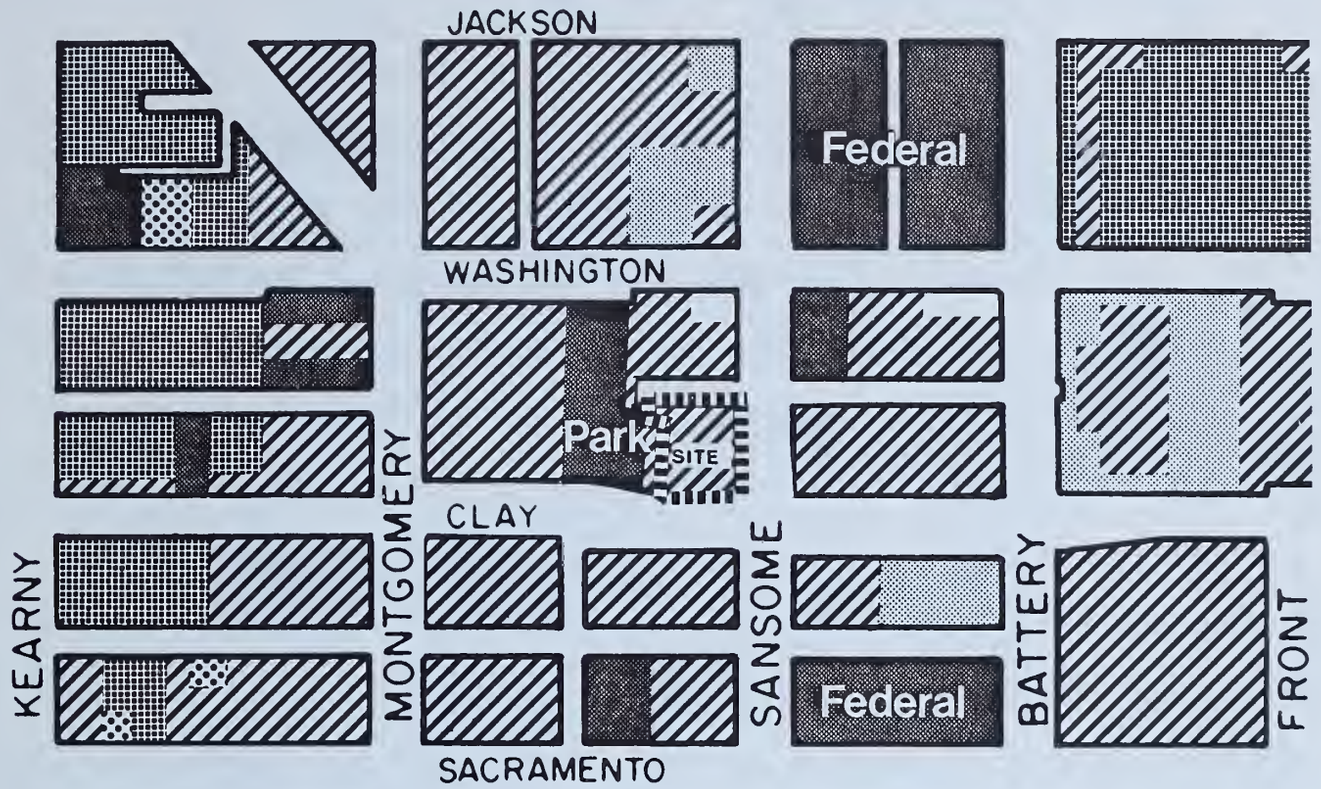
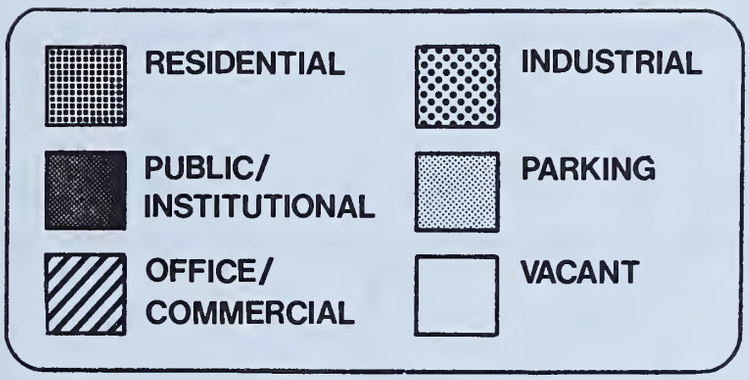
[1]Conversation with Peter Conmy, January 15, 1975. Mr. Conmy's father was co-owner of the Shannon-Conmy Printing Company, one of the first tenants of the Niantic Building.





Existing Land Use

FIGURE 15

listed in Here today: San Francisco's architectural heritage.[1] The San Francisco Landmarks Advisory Board has examined the site. They recommend that the historical plaque should be placed on the new building and that if any artifacts are found, the San Francisco Maritime Museum should be notified.[2]

3. Public Services

Transportation (Figure 16)

The project site is well located for transit access. San Francisco Municipal Railway buses and streetcars provide the primary transit service to the area. Four routes (15, 42, 41, and 55) pass within one block of the site and provide access to northern, western, and southerly areas of the city. Access is also provided by these lines to the Trans-Bay Terminal and the Southern Pacific depot.

In addition to the above service, the California Street cable car route is two blocks south, the Market and Montgomery BART Station is five blocks south, and the Golden Gate Ferry Terminal is five blocks east. The Golden Gate Bridge, Highway, and Transportation District commuter bus (financial district route) passes

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[1]Junior League of San Francisco, Here today: San Francisco's architectural heritage, San Francisco, Chronicle Books, 1968.

[2]Conversation with Ed Michael, San Francisco Department of City Planning, February 14, 1975.

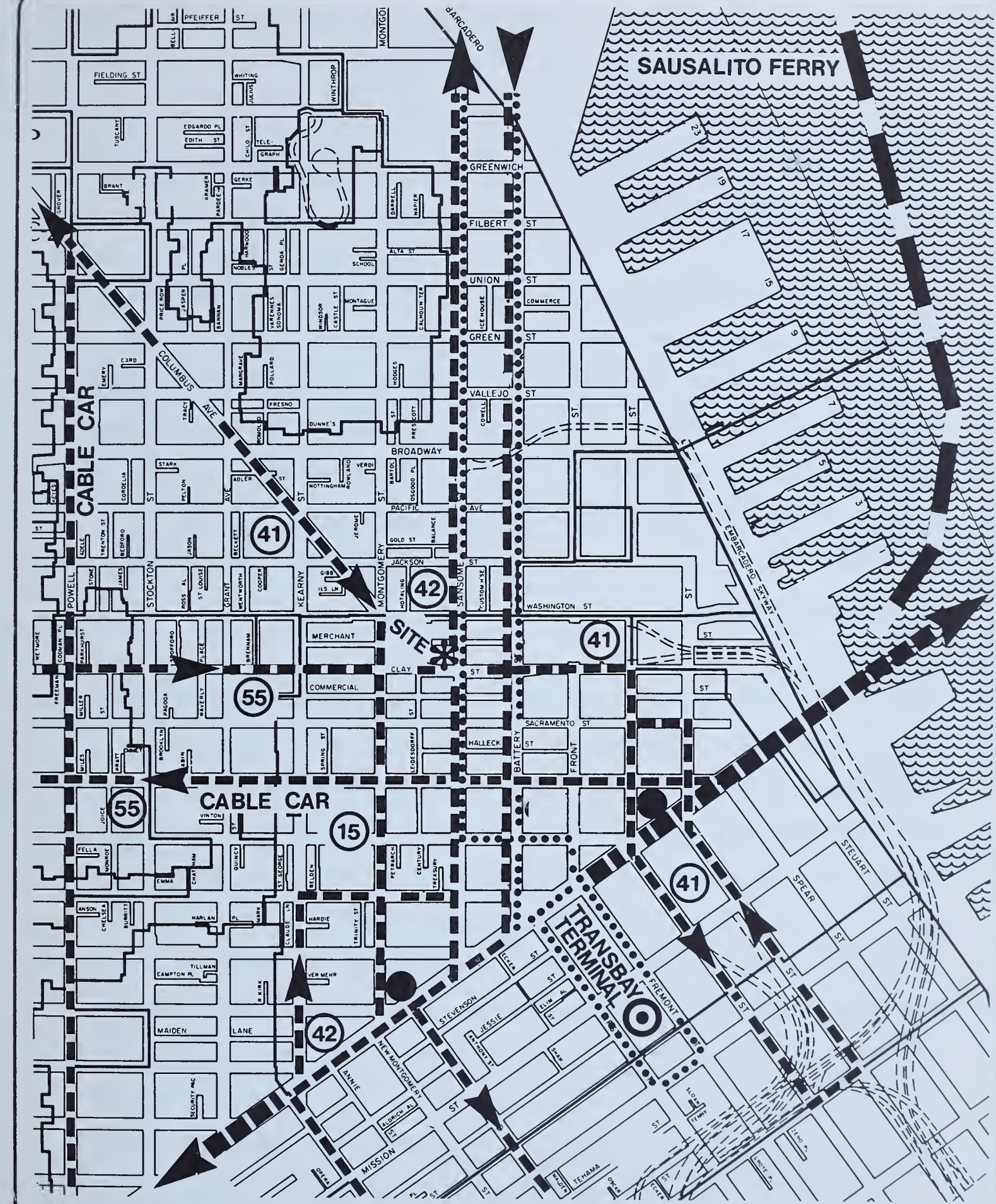
SAUSALITO FERRY
EMBARCADERO
GREENWICH
FILBERT ST
UNION ST
GREEN ST
VALLEJO ST
BROADWAY
PACIFIC AVE
JACKSON ST
WASHINGTON ST
MERCHANT
CLAY ST
COMMERCIAL
SACRAMENTO ST
HALLECK ST
SITE
CABLE CAR
COLUMBUS AVE
POWELL
STOCKTON
GRANT
KEARNY
MONTGOMERY
SANSOME
BATTERY
FRONT
FIELDING ST
PFEIFFER ST
EDGARDO PL
EDITH ST
BRANT
GERKE
ALTA ST
SCHOOL
NOBLE ST
MONTAGUE
FRESNO
DUNNE'S
STARK
ADLER
NOTTINGHAM
VERDI
GOLD ST
JEROME
GIBB
HOTALING
CUSTOM HSE
VINTON
HARLAN
PL
CAMPTON PL
TILLMAN
MAIDEN LANE
VER MEHR
HARDIE
TRINITY ST
CLAUDE LN
ANNIE
NEW MONTGOMERY ST
MISSION
ALDRICH AL
STEVENSON
JESSIE
ELIM AL
ECKER
FREMONT
TRANSBAY TERMINAL
STEUART
SPEAR
TEHAMA
HOWARD
FOLSOM
HARRISON
BRYANT
41
42
55
15
legend:
municipal railway
golden gate transit
bart ● station
Transit Systems
N

FIGURE 16

along Battery and Sansome Streets with a stop on Sansome between Clay and Sacramento Streets.

Five streets within a two-block radius of the project (Battery, Sansome, Montgomery, Kearny, and California) are listed in the Transit Preferential Streets Plan. (A Transit Preferential Street is "an important street for transit operations where interference with transit vehicles by other traffic should be minimized."[1]). The use of Sansome Street as a preferential street for Golden Gate buses was one of the alternatives considered in the Golden Gate Corridor Study.[2]

The site is also accessible by automobile. Embarcadero Skyway off- and on-ramps (providing access to U. S. 101 and the Bay Bridge) are located at Washington and Davis Streets and Clay and Davis Streets, respectively, three blocks from the site. Major thoroughfares (crosstown thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways) are Washington, Clay, Battery, Sansome, Montgomery, and Kearny Streets.[3] In addition, Washington and Clay Streets are listed as primary vehicular streets in

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[1]San Francisco Department of City Planning, Transportation: The Comprehensive Plan, adopted April 27, 1972, p. 13.

[2]Kaiser Engineers, Golden Gate Corridor long range transportation program, draft final report, 1975.

[3]San Francisco Department of City Planning, Transportation, p. 23.

the Downtown Transportation Plan.[1] Sansome and Battery Streets are listed in the Transportation Element as streets to be improved as bicycle routes. There is little demand for this at the present time.[2,3]

Table 2, on the following page, shows existing street parking restrictions and off-street parking spaces for the surrounding area.

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[1]San Francisco Department of City Planning, Transportation: The Comprehensive Plan, adopted April 27, 1972, p. 25.

[2]Ibid., p. 21.

[3]Edward Green, San Francisco Department of City Planning, telephone conversation January 24, 1975.

TABLE 2

Parking Accommodations and Restrictions near Sansome and Clay

Street	Parking Meters	Curb Striping, Approximate Footage				Towaway Zones	Off-Street Parking Spaces
		Red	Yellow	White	Green		
Battery (Calif. to Jackson	43	530	620	165	12	Calif. to Sacto. (West side 7-9)	593
Sansome (Calif. to Jackson)	27	140	975	185	0	4-6	140
Montgomery (Calif. to Jackson	29	390	475	160	0	Calif. to Clay (east side 7-6, west side 7-9, 4-6)	45
Washington (Kearny to Front	39	660	260	135	12	Battery to Front (south side any time)	1475
Clay (Kearny to Front)	34	710	86	40	0	Kearny to Montgomery (north side any time, south side 7-9, 4-6). Montgy. to Sansome (north 7-9, south 7-6). Sansome to Battery (north 7-9, south 7-9, 4-6). Battery to Front (7-9, 4-6)	200
Sacramento (Kearny to Front)	29	970	865	65	0	Kearny to Battery (north side 4-6, south side 7-6). Battery to Front (4-6)	478

C. ECONOMIC SETTING

Total assessed valuation of the site is $202,750, of which $154,500 is based on land and $48,250 on improvements. Property tax yield from the site is approximately $25,850 at the tax rate of $12.75/$100 of assessed valuation.[1]

About 25 people are currently employed on the site.

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[1]1975-1976 data.

III. DIRECT AND INDIRECT IMPACTS

A. PHYSICAL IMPACTS

1. Geology, Soils, and Seismicity

Because of the severely disturbed and artificially filled nature of the site, the project's impacts on the natural site soil and geologic features cannot be assessed accurately at this stage. The site offers potential hazards (ground shaking, liquefaction, subsidence) in the event of a significant earthquake. A preliminary foundation design, however, calls for sinking 330 piles into the firm underlying sand strata for foundation support, which should reduce the potential for structural damage.

2. Microclimate

Construction of the project would not greatly affect sunshine patterns because the area is dominated by shadows from existing buildings. During fall and spring afternoon shadows from the proposed building would shade the area of Sansome Street near Merchant. The rooftop area would be in sunshine most of the day in summer and a few hours daily in winter.

The wind-tunnel tests conducted as part of the Microclimate Impact Study (Appendix A) showed that winds would generally

increase with the construction of the proposed project along Clay, Sansome, and Merchant Streets. Transamerica Redwood Park would be unaffected.

As stated earlier, the frequency of discomfort on the site is moderate compared to other areas in San Francisco. Construction of the proposed project would increase discomfort frequencies adjacent to the site on the order of 5 percent (except for Transamerica Redwood Park, which would not be affected). These increases are a result of both higher winds (along Clay, Sansome, and Merchant Streets) and longer shadows (affecting the east side of Sansome Street).

3. Air Quality

The short-term impact of the project on air quality would be caused by increased dust in the air during construction and exhaust emissions from construction vehicles.

Energy would be supplied by electricity and natural gas, neither of which causes air pollution problems on site. The products of natural gas combustion are relatively innocuous,[1] and electricity for this area is generated elsewhere, either hydro-electrically

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[1] U.S. Environmental Protection Agency, Compilation of air pollutant emission factors, 2nd ed., Supplement No. 3. Washington, D. C., July 1974.

or by burning natural gas. The effects of these processes are removed from the site.

An indirect impact on air quality would be exerted by the automobile trips per day generated by the project. The emissions from automobiles could make some contribution to ambient levels of pollution in the central business district. The project does not provide parking and is accessible by public transit; therefore its impact on air quality might be less than that of a similar facility with parking or on a site not accessible by public transit.

4. Noise

The greatest generation of noise associated with the proposed project would be during the construction period. Excavating and pile driving are usually the loudest activities associated with construction. Peak noise levels during operation of a diesel pile driver are generally between 100 and 107 dBA,[1] measured at a distance of 40 feet, or about 93-100 dBA at 100 feet. The San Francisco Noise Ordinance (Ord. 274.72, Chapter 8, Municipal Code) states that construction equipment may not have an emitted noise level exceeding 85 dBA at 100 feet. Impact

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[1]The dBA is a unit of sound energy on a logarithmic scale weighted to correspond approximately to human perception of sound, making it possible to compare common urban noise levels.

equipment such as a pile driver is exempt from this maximum noise level but must have intake and exhaust mufflers that provide maximum noise attenuation.

The pile-driving phase is estimated to last about six weeks. Most noise generation would, therefore, be limited to about a month and a half. People in surrounding buildings and on the street would experience some discomfort during this period. Other construction activities would generate noise levels slightly higher than the area's ambient level of 65 dBA.

A scale of typical noise levels with their associated activities is given in Figure 11, page 24. Noise associated with the completed project would be generated by ventilating and electrical equipment. Their position on the roof, however, would make this noise inaudible to pedestrians at street level. The noise could be detected from the upper floors of nearby buildings but only during the night, when ambient background levels are low. Actual current nighttime background levels and the future noise levels generated by the mechanical equipment at neighboring buildings are not known.

5. Vegetation and Animals

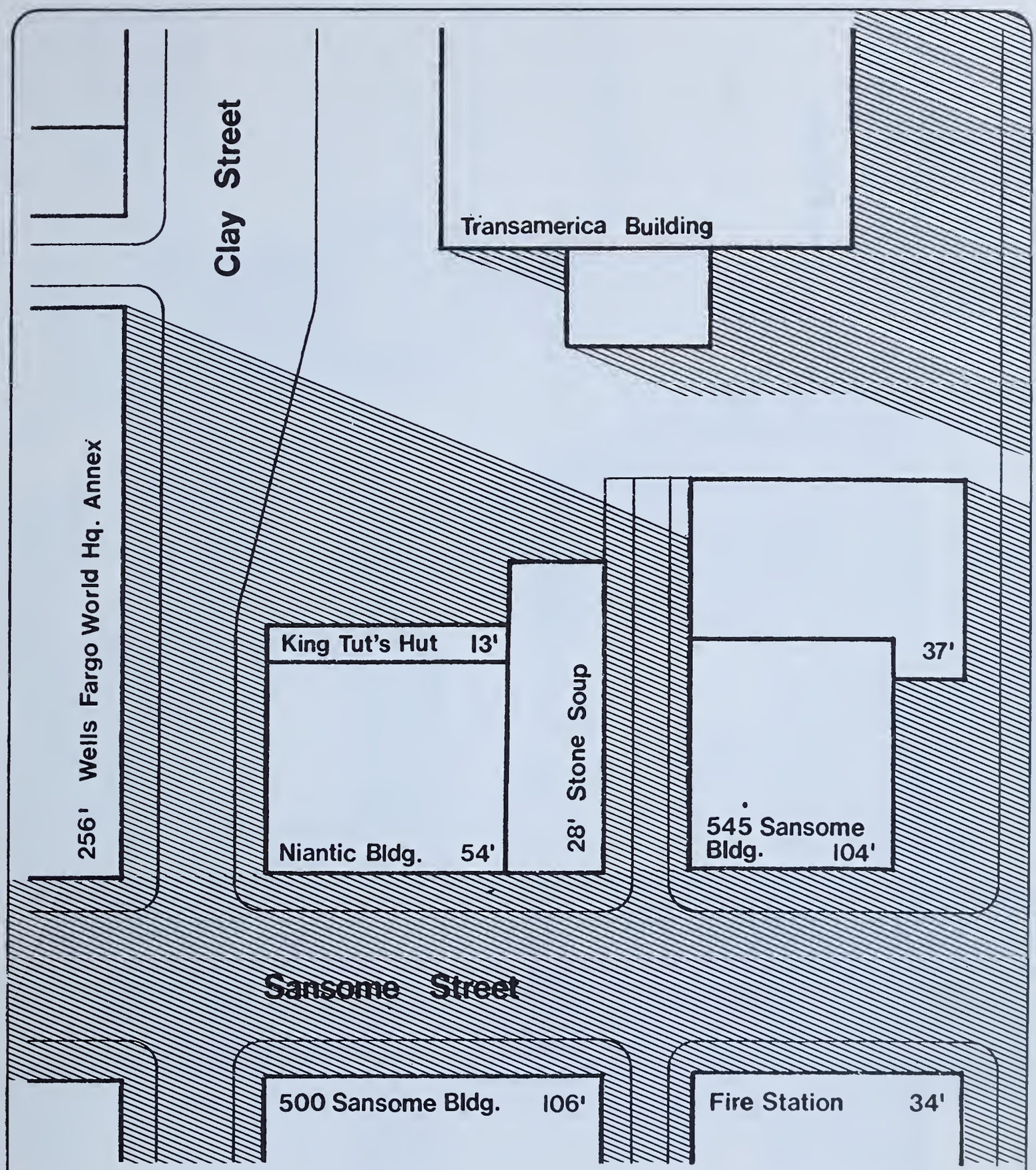
Landscaping and street trees would increase the habitat for normal urban birds and insects.

6. Aesthetics

The proposed building would have limited visual impact on the San Francisco city skyline. Since it would be located in the financial district downtown, many nearby office structures rise above its projected maximum 18-story height. The relative building heights along Sansome Street, moving south to north, would step down from the Wells Fargo Building at 20 stories and the proposed new building (18 stories maximum), through the 10-story building on the northwest corner of Merchant Street, to the low buildings in the Jackson Square district (see Figure 14, page 28).

The bulk of the building would be most noticeable looking east on Clay from Kearny or Montgomery toward the freeway, and from the north side of the Transamerica Pyramid through the Transamerica Redwood Park, where the openness of the space created by the park makes the site of the proposed building visible.

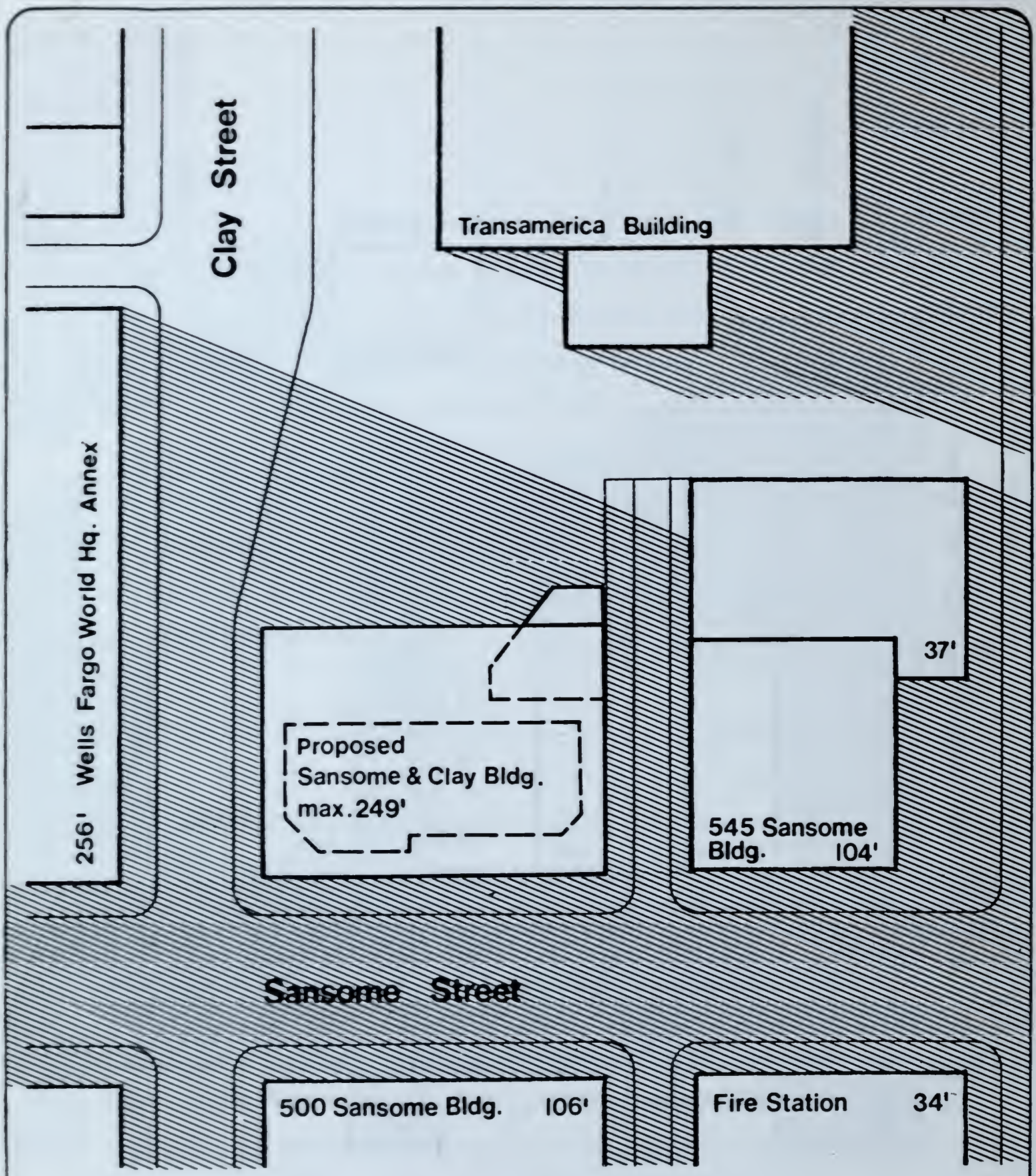
Primary views from the new structure would be to the east and north. Views from buildings surrounding the site are now limited from the ground floor up to about the fifth floor. The proposed construction would further block some views west from the 500 Sansome Building and north from the Wells Fargo Building. Sunlight reaching Clay and Sansome Streets would be blocked as shown in Figures 17 through 19a.



Shadow Diagram Existing
Winter: 1 pm

SCALE: 1" = 50'

FIGURE 17

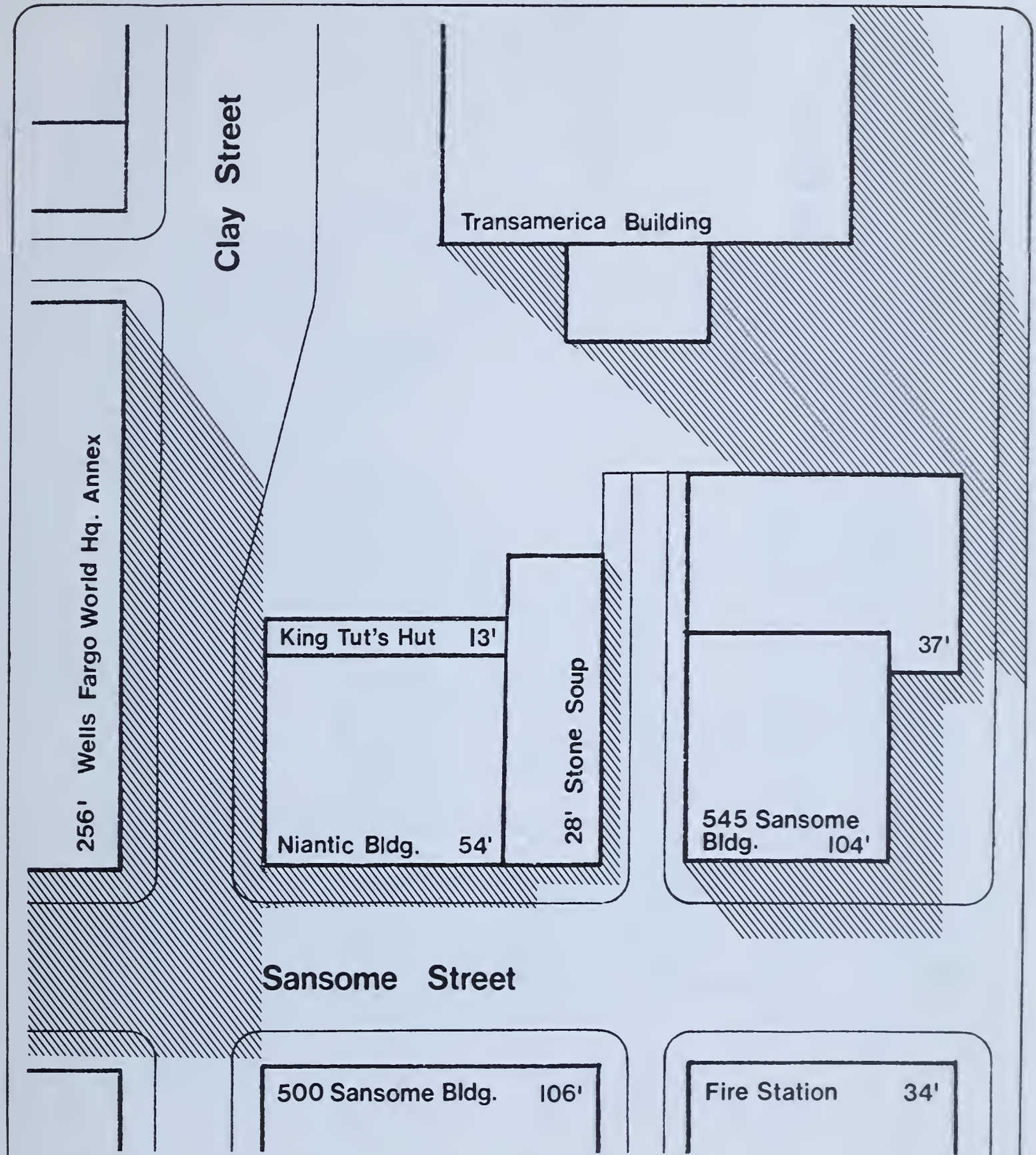


Shadow Diagram Proposed
Winter: 1 pm

SCALE: 1" = 50'

N

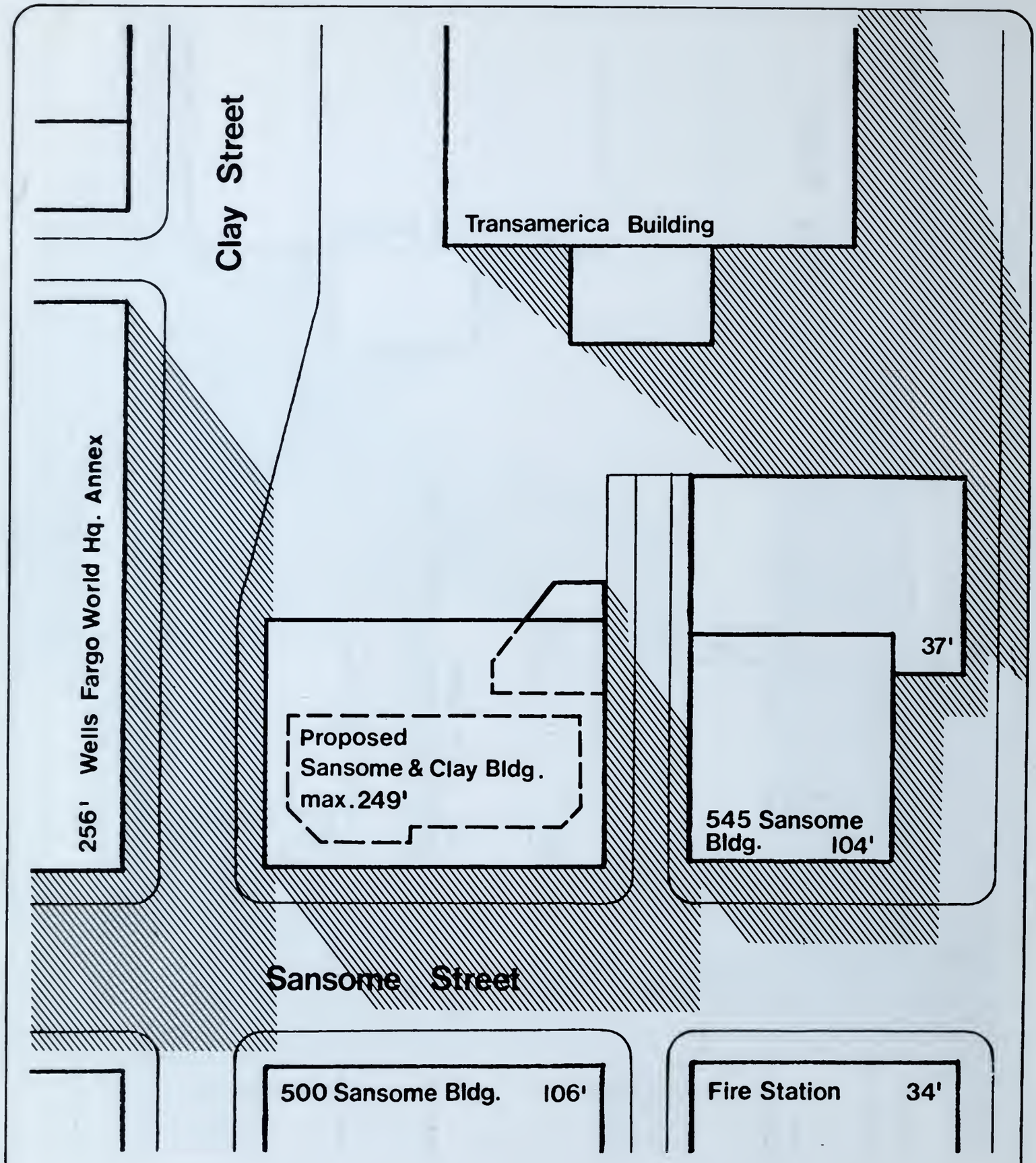
FIGURE 17a



Shadow Diagram Existing
Summer: 1 pm

SCALE: 1" = 50'

FIGURE 18



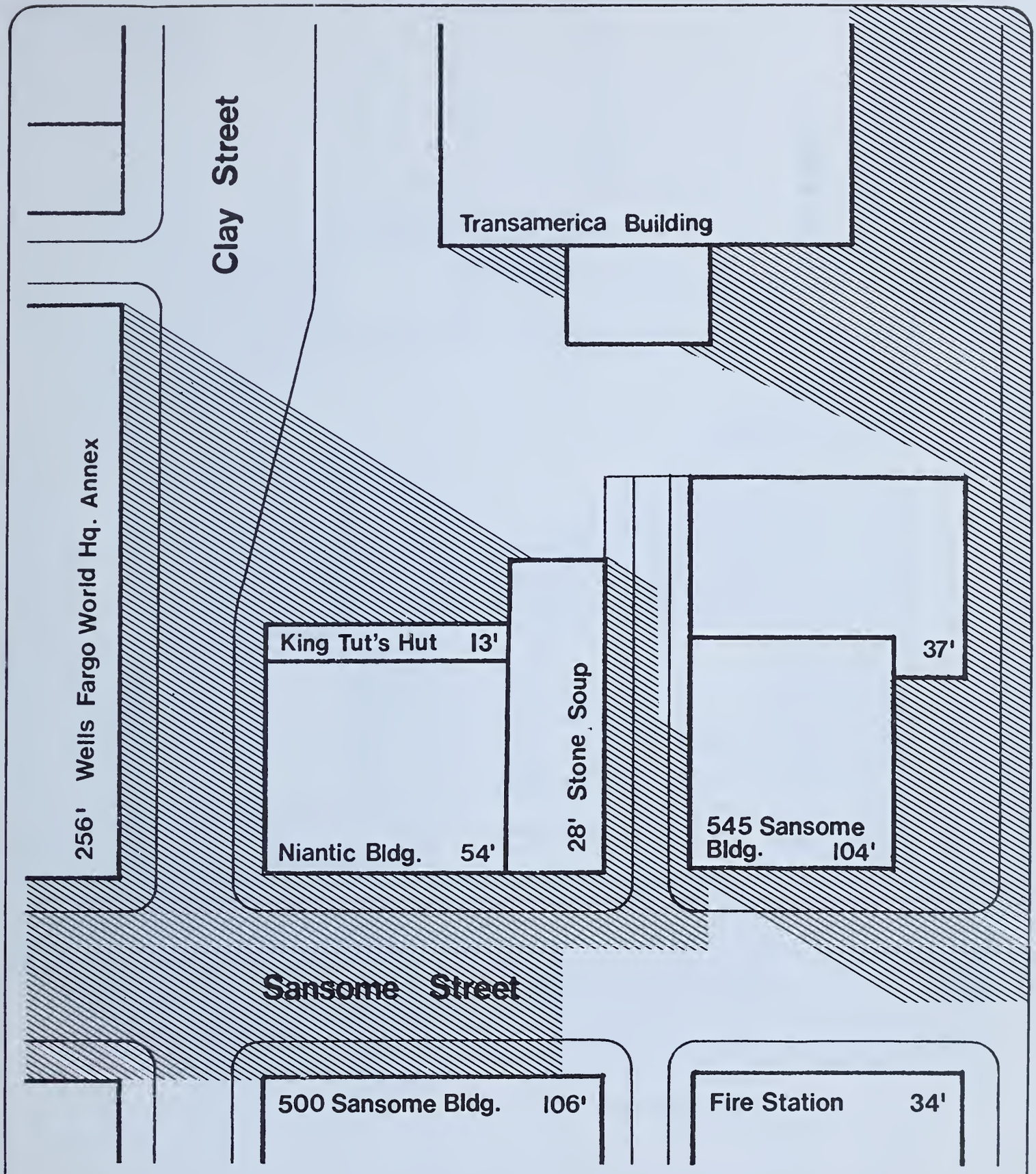
Shadow Diagram Proposed

Summer: 1 pm

SCALE: 1" = 50'

N

FIGURE 18a



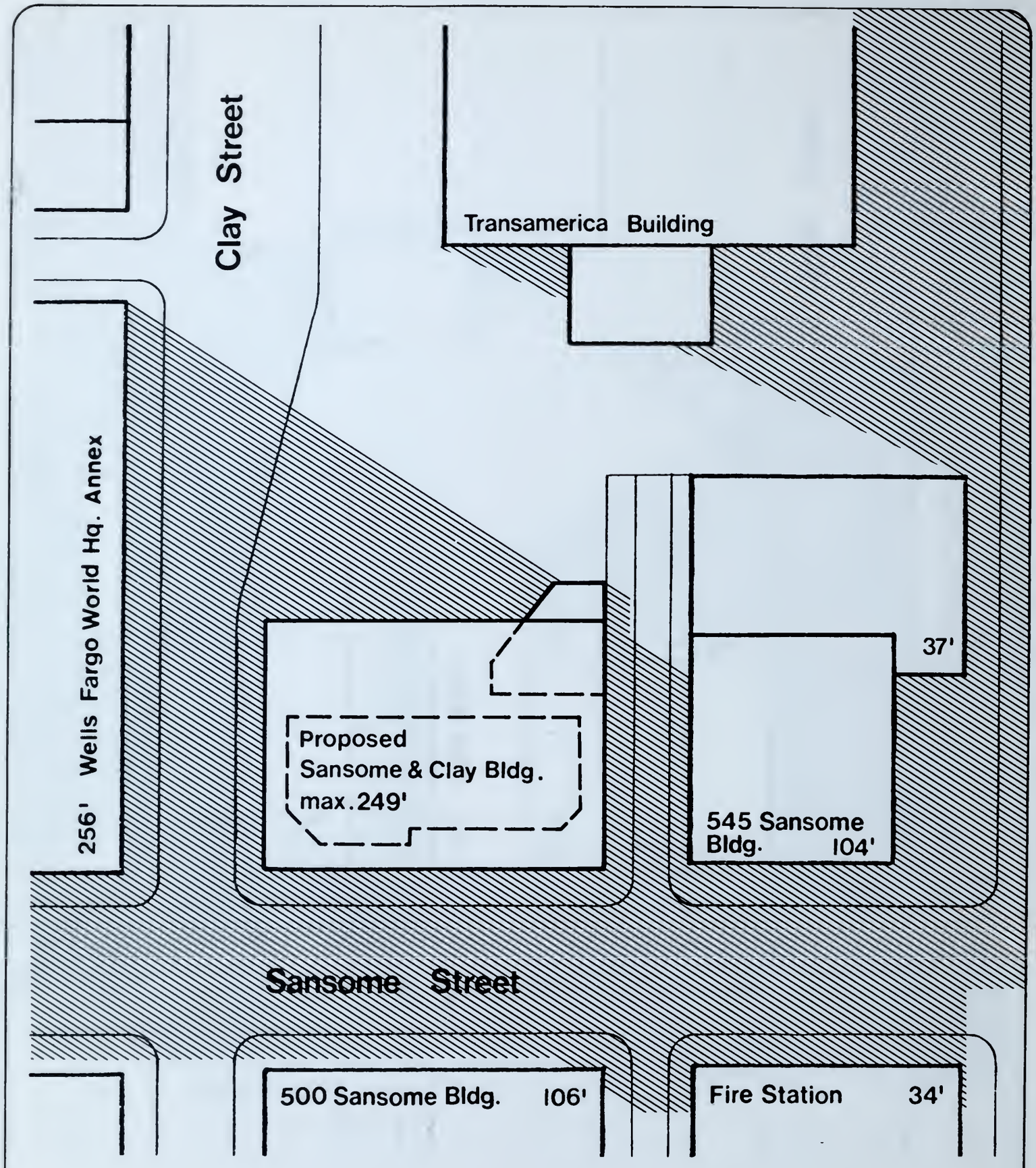
Shadow Diagram Existing

Fall / Spring: 1 pm

SCALE: 1" = 50'

N

FIGURE 19



Shadow Diagram Proposed

Fall / Spring : 1 pm

SCALE : 1" = 50'

N

FIGURE 19a

The visual character of the building would depend heavily on subsequent decisions regarding facade and skin treatment. These considerations would undergo Discretionary Review by the City Planning Commission. The proposed building, as conceived, complies with design guidelines established for the site by the Department of City Planning.[1]

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[1]San Francisco Department of City Planning, Guidelines for development: northwest corner of Clay and Sansome Streets, September 10, 1975 (Appendix C, page 103).

B. SOCIAL AND PUBLIC SERVICE IMPACTS

1. Land Use

The primary effect of the proposed project would be to increase the intensity of use on the site. Site population could increase by a maximum of 1,090.

The project would be consistent with the Association of Bay Area Governments' general plan[1] to strengthen city centers economically and to increase employment. It would indirectly support the continued growth of the retail- and commercial-oriented services of the adjacent area.

2. Historical and Archaeological Resources

Because there are no known historical or archaeological sites remaining at this location, impacts are not expected (see Sections II.B.2 and V.D, Mitigation Measures).

3. Public Services

a. Electricity and Gas

The proposed building would require 1.2 KWH/square foot of interior floor space/month. This would be 187,000 KWH for the 17-story option and 196,000 KWH for the 18-story option. The

[1]Association of Bay Area Governments, Regional plan: 1970-1990, San Francisco Bay Region, Berkeley, 1970, pp. 12-13.

service would be provided by a new 120/208-volt, 3-phase, 4-wire underground connection to PG&E's existing line. Building transformers would be located on the structure's ground floor. Consumption figures assume 100 percent occupancy of the building's usable space. This demand represents an increase over current site use, but would not require any major alteration of the existing service system.[1]

Daily load distribution for electrical consumption is shown in Figure 20. This chart was developed early in the design process; actual consumption characteristics may vary slightly from those shown. Peak consumption in the building would take place from 10:00 a.m. to 5:00 p.m. Annual electrical consumption (Figure 21) would be nearly constant, with 10 percent less consumption in the winter than in the summer. Large buildings must be air conditioned throughout the year because their interior lights generate a considerable amount of heat. In colder months the air-conditioning load decreases, resulting in somewhat smaller electrical consumption.

The proposed building would be heated by natural gas. Consumption would be 15 BTU[2]/square foot of interior floor space/hour;

FIGURE 21

ANTICIPATED YEARLY ELECTRICAL CONSUMPTION

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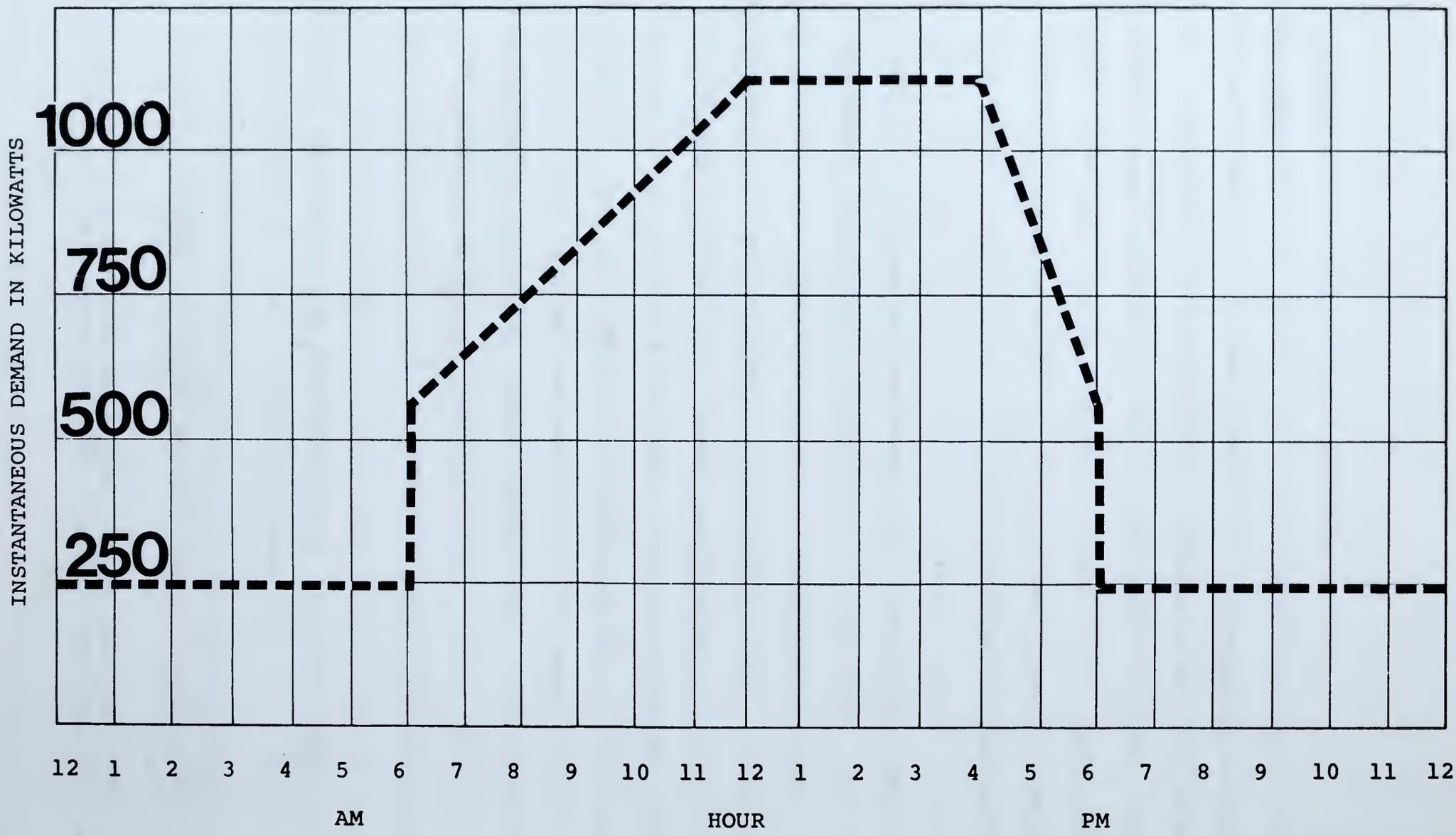
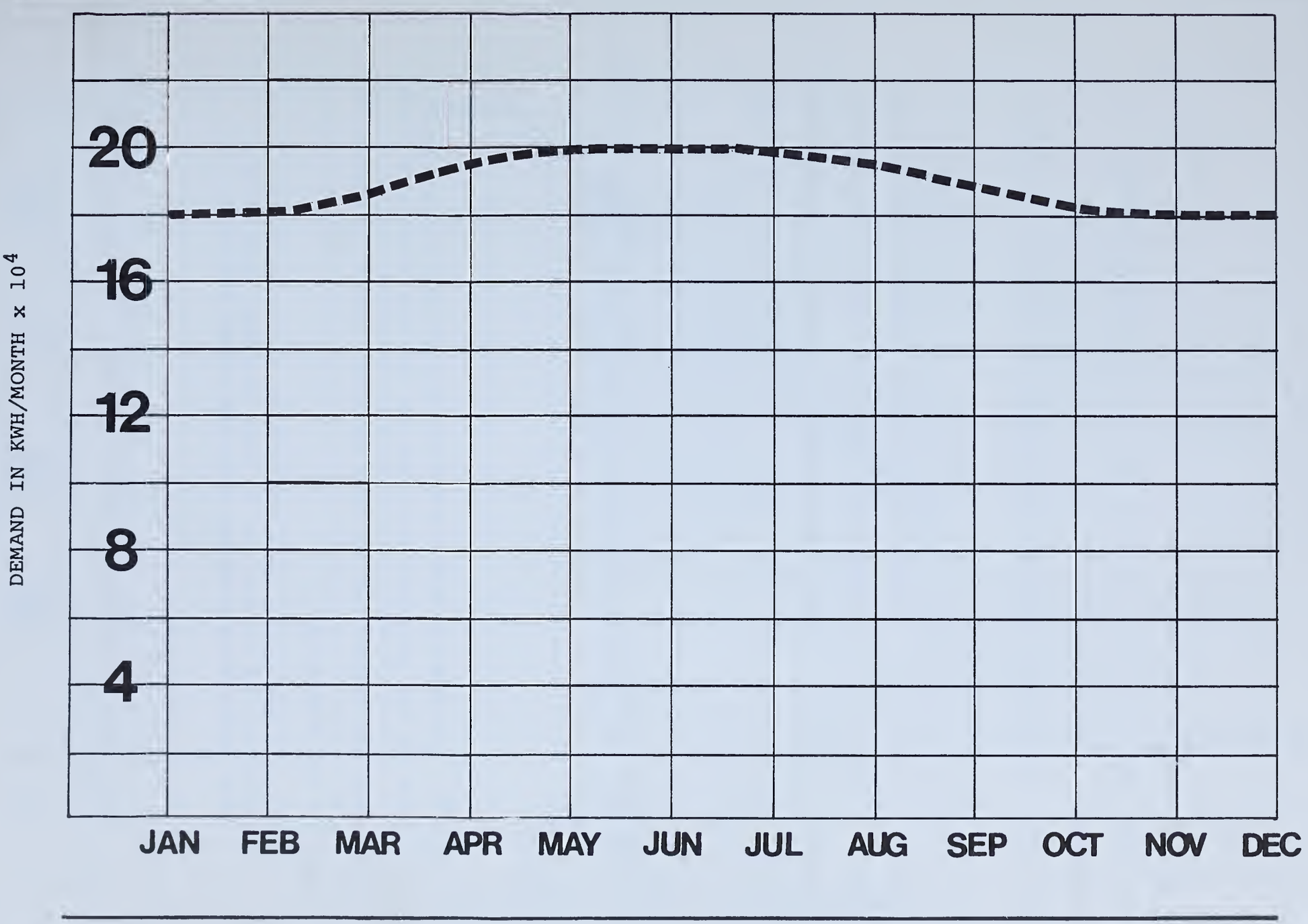
[1]Ted Hester, Pacific Gas and Electric Company, telephone call January 1975.

[2]BTU: British thermal unit; the amount of heat required to raise the temperature of one pound of water one degree F.



ANTICIPATED DAILY ELECTRICAL CONSUMPTION

FIGURE 20



ANTICIPATED YEARLY ELECTRICAL CONSUMPTION

FIGURE 21

maximum consumption would be 2,340,000 BTU/hour for the 17-story building and 2,450,000 BTU/hour for the 18-story building. No alteration would be required in the existing gas service system or lines, except for installation of the service connection.[1]

The daily gas consumption curve for the 18-story structure is shown in Figure 22. As can be seen, the heating, ventilating, and air-conditioning system would be turned on at 6 a.m. and shut off at 6 p.m. The values during the period of operation would vary according to the season. The curve shows the surge that would occur at 6 a.m. daily. The mechanical engineer anticipates keeping the system shut off during weekends. The annual gas consumption curve for the 18-story structure is shown in Figure 23. The peak month is expected to be December or January.

b. Fire

The impact of the proposed building on the San Francisco Fire Department was summarized by René Gautier, Chief, Division of Research and Planning:

> . . . I can state that the effect would be insignificant, if it did not in fact present less of a fire protection problem than the older building .

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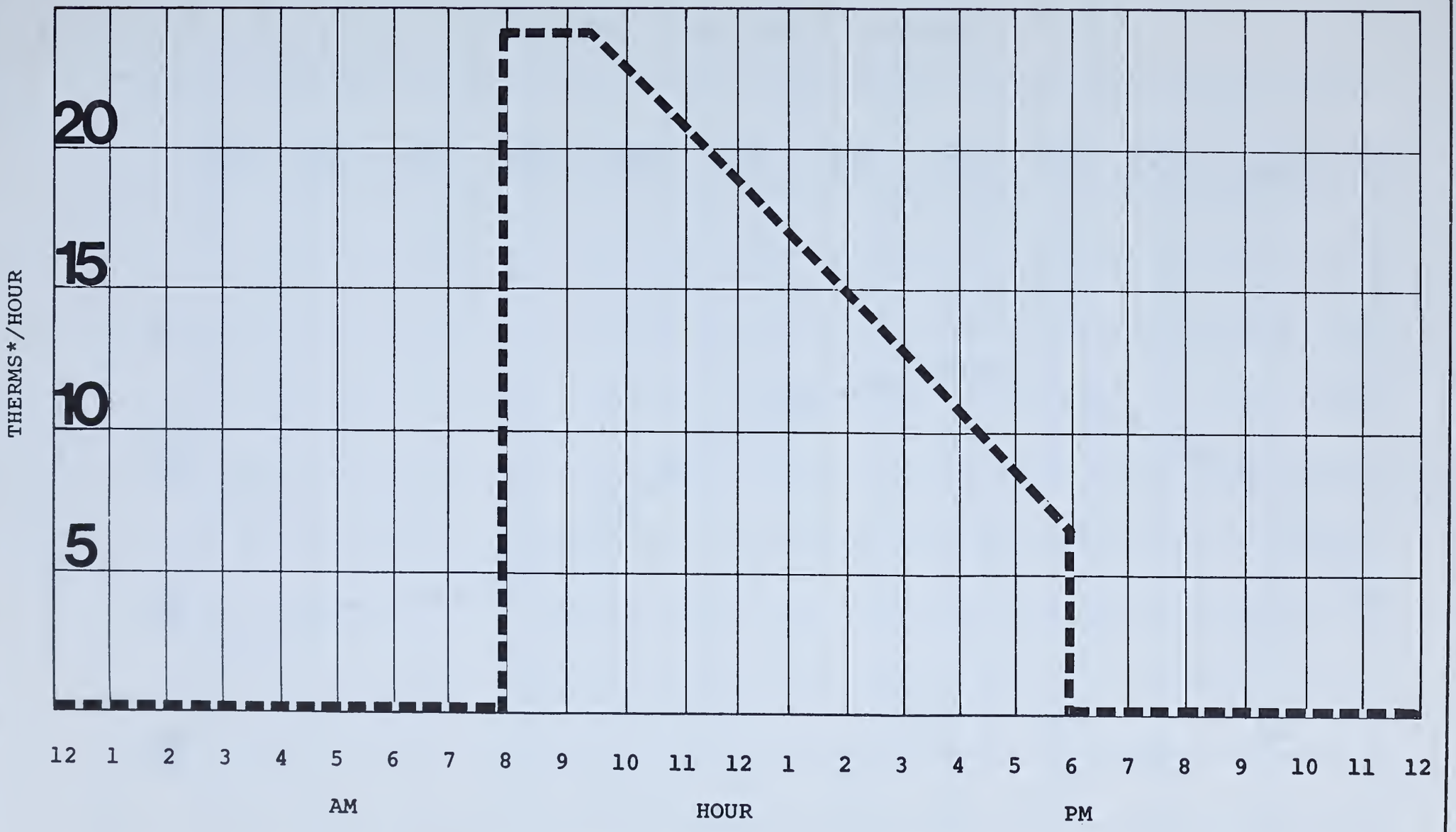
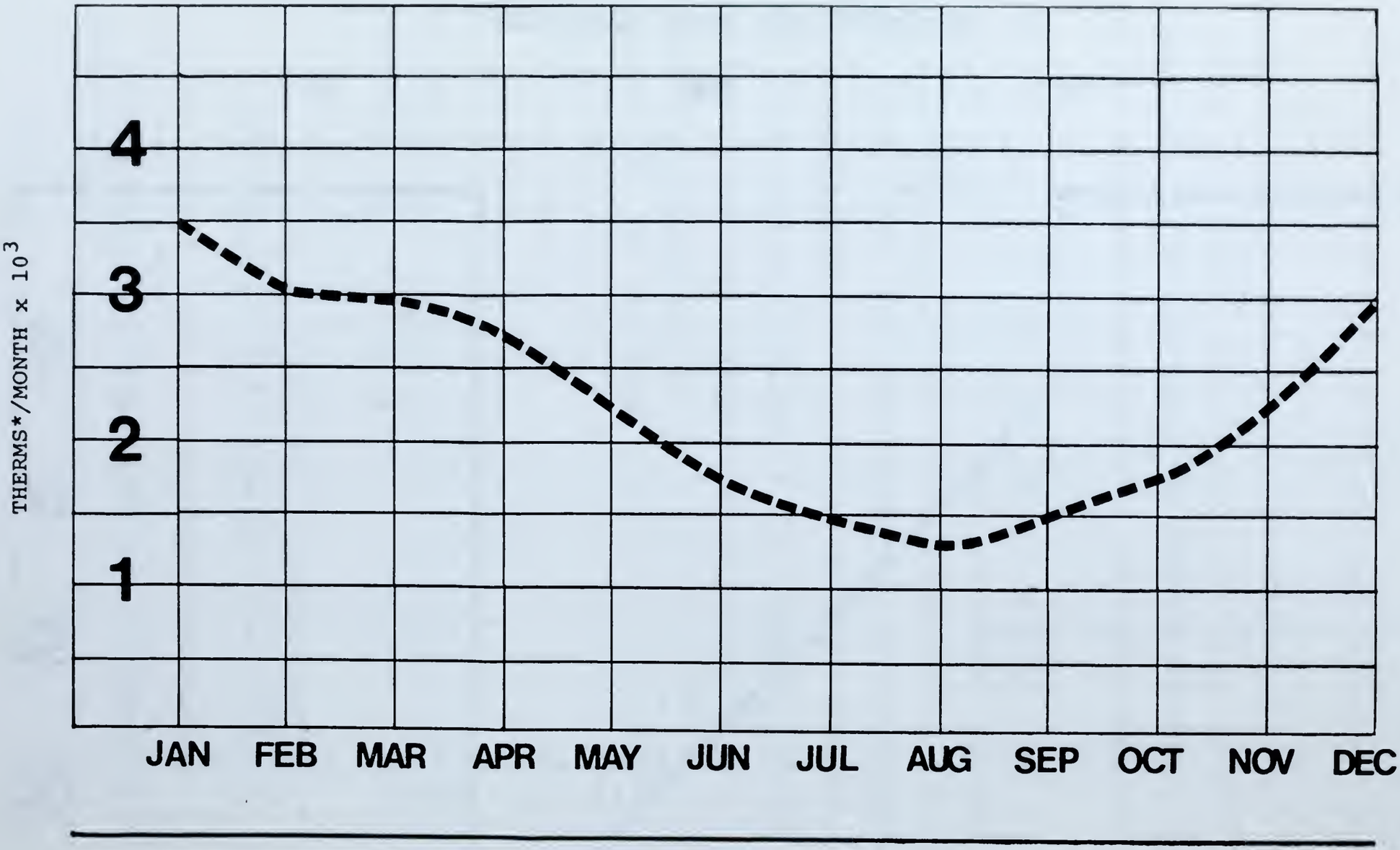
[1]Ted Hester, Pacific Gas and Electric Company, telephone call January 1975.



ANTICIPATED DAILY GAS CONSUMPTION

* 1 THERM = 100,000 BTU

FIGURE 22



ANTICIPATED YEARLY GAS CONSUMPTION

* 1 THERM = 100,000 BTU

FIGURE 23

> now occupying the site. Present day high rise buildings constructed under the requirements of a new Building Code encompass all the life safety and fire suppression features developed between the fire service and the construction industry.[1]

Responses to fires in the building would be made from a new fire station on Sansome Street across from the project, the Powell and Broadway station, and the Howard and Hawthorne station. Water at sufficient pressure for fire suppression is available from hydrants on Clay and Sansome Streets.

c. Police

The proposed building would add to the gradual overall increase in demand for police protection of people and property as land use becomes more intense in the area. Based on the increase in population and traffic, the San Francisco Police Department estimates the annual costs for police services that might be generated by the proposed project to be about $20,000[2] (conservatively high estimate).

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[1]Letter to Environmental Impact Planning Corporation January 2, 1975, on file with the Department of City Planning.

[2]Bob Bernardini, Planning and Research Bureau, San Francisco Police Department, telephone call September 8, 1975.

d. Solid Waste Collection and Disposal

The project area is serviced by the Golden Gate Disposal Company. The proposed building is expected to generate about 1,560 to 1,630 pounds of solid waste per day,[1] or about 24 to 25 tons per month. Service collection would be made every two to three days before 5 a.m.

After being collected, refuse is trucked to the San Francisco solid waste transfer station near the Bayshore Freeway at Tunnel Avenue. From there it is transported to the City's sanitary landfill site in Mountain View, which is expected to be filled in the next eight years (no specific replacement site has yet been selected). The increase in solid waste generated from the project site (roughly 1,460 to 1,530 lbs/day) would represent about 0.05 to 0.06 percent of San Francisco's total solid wastes (based on city solid waste data for August 1975).[2]

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[1]Based on a generation rate of 1 lb./100 sq. ft./day from: California Solid Waste Management Board, Solid waste generation factors in California, Technical Information Series Bulletin No. 2, July 8, 1974.

[2]John Moscone, President, Golden Gate Disposal Company, Vice President, State Solid Waste Management Board, telephone call September 15, 1975.

e. Water

Based on a water consumption figure of 15 gallons per person per day for offices,[1] the proposed project would consume 15,600 to 16,350 gallons per day (0.015 to 0.016 million gallons per day). The service connection would be made from a 6-inch main on the west side of Sansome Street or a 12-inch main on Clay Street. Either would have the capacity to serve the building's needs.[2]

f. Wastewater

The proposed structure would deliver about 15,600 to 16,350 gallons per day (0.015 to 0.016 million gallons per day) into the sewer system (not all of the water consumed by the project would go into the sewer system, but the difference would be negligible). Wastes are now treated at the North Point treatment facility. The cost of treating this amount of wastewater is estimated at about $1,170 per year.[3]

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[1]Metcalf and Eddy, Inc., Wastewater engineering: collection, treatment, disposal (New York: McGraw-Hill Book Company, 1972), p. 30.

[2]John Kenck, Water Division, San Francisco Department of Public Works, telephone call January 29, 1975.

[3]Art Brandow, Division of Sanitary Engineering, San Francisco Department of Public Works, telephone call September 23, 1975.

The North Point facility is currently near capacity in dry weather; since the city storm and sewer systems are combined, peak wet-weather flows frequently exceed the plant's capacity and excess untreated flow is discharged into San Francisco Bay.

The San Francisco Bay Regional Water Quality Control Board has cited the North Point plant because it does not comply with required water-quality standards.[1] Implementation of the Wastewater Master Plan,[2] which calls for eventual phasing out of the North Point treatment plant, will ultimately lead to substantial compliance with the requirements of the Water Quality Control Board. In the interim, wastewater from its service area will be pumped by means of a crosstown transport pipe to the Southeast plant. Maximum waste generation from the proposed building would be 0.025 percent of the 65-mgd capacity of the North Point facility.

g. Transportation

An analysis of transportation impacts resulting from the proposed project was made by D. K. Goodrich, consulting engineer,

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[1]San Francisco Bay Regional Water Quality Control Board, Cease and Desist Order, Resolutions 67-2, adopted 11/19/67; 73-55, adopted 6/26/73; and 73-54, adopted 9/25/73. Cease and Desist Order amended and new compliance schedules set 12/6/74.

[2]U.S. Environmental Protection Agency and City and County of San Francisco, Final environmental impact report and statement: San Francisco wastewater master plan, May 1974.

transportation and traffic. Mr. Goodrich's report is included as Appendix B.

The analysis was performed for a one-hour afternoon peak. It is estimated that 65 percent of the employees would leave the building during this period. The following increases in trip generation would result from the project for this period.[1]

Transit	285 - 295 persons
Auto (375 - 395 persons in autos at 1.3 persons/auto)	290 - 305 autos
Pedestrians	
- walking south on Sansome from building	220 - 235
- walking east on Clay from building	220 - 235
- using north and west crosswalks at Sansome and Clay	165 - 175
- using south and east crosswalks at Sansome and Clay	65 - 70

The majority of transit users would be Muni riders. Muni ridership, for the whole system, is at 97 percent capacity during peak

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[1]Assumptions on which these estimates are based are found in Appendix B.

morning and afternoon hours. Ridership of individual Muni lines in the area is at the following percentages of capacity: Route 15: 123; Route 41: 116; Route 42: 106; Route 55: 189; and Route 61: 112.[1] The combined ridership for the five routes is at 134 percent of capacity. If all transit users were new riders, the project would result in an increase of 0.18 percent in total ridership during a peak hour, which would create no appreciable change in Muni capacity. Within the area, however, it could create a 4.7 to 4.9 percent increase, bringing the ridership to 139 percent of local capacity.

An analysis of pedestrian and traffic counts at the Sansome-Clay intersection (January 27, 1975, peak afternoon hour) showed it to be operating at 56 percent of its capacity. With the traffic from the proposed project, the intersection would be operating at 62 percent of its capacity. Local traffic effects would diminish rapidly with increasing distance from the immediate project area. The effects would be reduced by one-half for every block of distance from the Sansome-Clay intersection.[2]

The Sansome Street sidewalk in front of the project building now carries 0.71 persons per foot of sidewalk per minute (pfm).[3]

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[1]James J. Finn, Director of Transportation, San Francisco Public Utilities Commission, letter to EIP August 26, 1975.

[2]With a grid pattern of one-way streets, a motorist has two basic choices of route at each intersection; two-way streets give him three choices, further dispersing the effects.

[3]The number of persons using a sidewalk over a peak one-minute period, divided by the sidewalk width in feet (see Note 3, Appendix B).

The proposed project would increase this to 1.15 pfm. Clay Street is expected to exhibit similar present and projected pfm levels. Both figures are well below the 9 to 10 pfm at which walking comfort is significantly reduced because of pedestrian crowding.[1]

It is estimated that the project would generate a demand for 445 to 470 all-day parking spaces. An EIP survey (January 1975) of parking within a two-block radius showed about 3,000 spaces, with a 90% occupancy in the morning. The project would exceed off-street parking capacity if all parking demand were imposed on the immediately surrounding area. No on-street parking would be lost as a result of the project, but the demand for metered on-street spaces could be assumed to increase by about 50 to 70 spaces.[2]

As proposed, trucks would park on Merchant Street to unload rather than at an off-street dock. This would necessitate the granting of a variance from the Planning Code, since one such off-street space is required. If a variance were not granted, the project sponsor would plan to locate the loading dock on the Merchant Street side of the building. San Francisco City

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[1]Note 3, Appendix B.

[2]Assumption by D. K. Goodrich, Consulting Engineer, Transportation and Traffic.

Planning staff, however, have indicated that they would not support a variance at this time but prefer the Merchant Street side of the building for the loading dock. Clay Street is the only other possible location since Sansome is a Transit Preferential street. Continuing the truck traffic on Merchant Street would preclude its use as a pedestrian-only corridor.

If an off-street loading dock were incorporated into the plan, redesigning the first floor to accommodate it would result in a loss of pedestrian areas and/or commercial space. The unloading area question will be resolved in the Planning Commission's Discretionary Review.

The exclusion of parking facilities from the project supports the objectives and policies of the Transportation Element of the San Francisco Comprehensive Plan by giving priority to public transit as the primary mode of travel to and from the downtown center.[1] The proposed building conforms to other stated policies in the element by providing additional pedestrian space in the new building and by improving the pedestrian circulation.[2]

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[1]San Francisco Department of City Planning, Transportation: The Comprehensive Plan, adopted April 27, 1962, p. 6.

[2]Ibid. p. 7.

C. ECONOMIC IMPACTS

As a result of the proposed project, the commercial and retail concerns now located on the site would be displaced from their present quarters. These concerns (except for the building maintenance firm) are compatible with the proposed use of the site and could theoretically relocate in the new building. The differential in rental rates (more than double) between the older structures and a modern office building could prevent most from doing so, however. Present rents are low because of the poor condition of the buildings and the likelihood of their future demolition.

There are three primary leaseholders on the project site: C. H. Waldeck, Busiline, and R. Delman. Tenants have recognition of the possibility for demolition through stipulations in their leases (i.e., cancellation provisions providing for one to six months' prior notice and penalty payment to the lessee). Other tenants are on a month-to-month basis.

Anticipated tax yield is about $320,000 annually, based on the 1975-76 tax rate of $12.75/$100 assessed value. This would result in a net annual increase over existing receipts from the site of about $295,000. On the other hand, the proposed building would be associated with additional community service costs, such as police (see page 57), fire (see page 57), transit (see

page 62), and sewage (see page 59). An accurate estimate of total service costs cannot be made at this stage of the project.

The project would provide for 207 man-years of construction employment.[1] Space for approximately 1,015 to 1,065 employees would be created on the site; while some of these would transfer from other buildings within the city, it is expected that many would be filling new jobs.

Other economic impacts include the indirect impact of construction expenditures (purchase of materials and services). The increased population concentration on the site would also stimulate retail and service activity in the downtown area.

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[1]Assuming 45 percent of construction costs for labor and an hourly wage for contract construction of $9.61 (U.S. Department of Labor, Bureau of Labor Statistics, telephone call August 1975).

IV. ADVERSE ENVIRONMENTAL EFFECTS THAT COULD NOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

The adverse effects that would result from the proposed project are:

1. Replacing the four-story structure with a 17- to 18-story structure would block some views from the surrounding multi-story buildings.

2. There would be an increase in energy consumption on the site.

3. Increases in traffic and air pollution in San Francisco would result from automobile trips generated by the project.

4. Wind levels would increase on Merchant and Clay with attendant increases in the frequency of discomfort.

5. Noise and dust would be generated by construction.

6. Demands for parking space would be increased in an area where parking is already quite difficult.

V. MITIGATION MEASURES PROPOSED TO MINIMIZE ADVERSE IMPACTS

A. IMPACT: OBSTRUCTION OF VIEWS FROM SURROUNDING SITES

In order to reduce the impact of constructing a much larger building that those now on the site, attention is being given to the lower levels to create an aesthetically acceptable ground-floor design, which would provide additional pedestrian space and facilitate the flow of pedestrians through and around the building. Street trees would also be planted along Sansome, Clay, and Merchant Streets. Transamerica Redwood Park would essentially be extended onto the project site by extending the slope into the basement area of the new building. Since the park is private property, access to it would not be altered.

B. IMPACT: INCREASED ENERGY CONSUMPTION ON THE SITE

Energy conservation measures have traditionally lost out to first-cost considerations in building design, construction, and utilization because they usually increase first costs, although they can decrease total costs over the lifetime of the building by reducing operating costs. About 80 percent of the lifetime energy costs of a building are associated with operation; the rest is energy used in fabrication and transportation of construction materials and in the construction process itself. As a

result energy can be most effectively saved by controlling the building design as it affects operating characteristics.

Hundreds of energy-saving ideas can be applied to an individual building. Most are found in the following publications: Energy conservation program guide for industry and commerce, National Bureau of Standards (NBS) Handbook 115; Technical actions for energy conservation in buildings, NBS Technical Note 789; Energy conservation guidelines for office buildings, General Services Administration, January 1974; Energy conservation in new building design, American Institute of Architects; and ASHRAE standard 90P, recently issued by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers. In examining energy conservation measures, it must be kept in mind that a building is a complex system and that making an energy-saving change in one area could result in greater overall energy consumption. Cost-effective energy conservation requires the integrated efforts of the architect, mechanical engineer, and project sponsors.

At the proposed project's current stage, no detailed decisions on energy conservation have been made. Energy conservation will be an important criterion for decisions on the surface treatment, amount and type of glass, and details of the heating, ventilating, and air-conditioning systems. Other measures are

under study as well, such as utilization of the lighting intensity standards proposed by ASHRAE and shorter operating hours for the building's mechanical systems. The proposed ASHRAE standards would be used as a model, but actual conformance with these standards cannot be determined at this design stage.

C. IMPACT: INCREASE IN TRAFFIC AND AIR POLLUTION FROM AUTO TRIPS GENERATED

No parking facilities are included in the project, which may promote transit use by employees and discourage use of private vehicles.

D. IMPACT: POSSIBILITY OF HISTORIC ARTIFACTS ON THE SITE

If any material of potential archaeological or historical importance should be found on the site, the contractor would be legally bound by its contract to stop construction to permit professional evaluation of the find. The San Francisco Maritime Museum would be notified regarding excavation dates and specific excavation plans in order that a qualified historian or archaeologist could be present if necessary.

E. IMPACT: INCREASE IN WINDS AT GROUND-FLOOR LEVEL

Two measures that could be utilized to mitigate this effect (excluding a major variation in building design) are: 1) planting large trees or shrubs along Clay, Merchant, and Sansome

Streets, and 2) closing off, or using revolving doors at, the Merchant Street entrance into the building's plaza area. As noted on pages 11 and 12, the use of street trees has been incorporated in the project.

F. IMPACT: DISRUPTION OF AREA DURING CONSTRUCTION

1. Dust

All potential sources of dust would be sprinkled as necessary to minimize dust generation. San Francisco construction regulations regarding control of dust generation[1] would be followed.

2. Noise

Efforts would be made to minimize construction noises. Construction noise levels would not exceed those permitted under City Ordinance 274.72, Paragraph 2907, Subparagraph C.

Pile driving is the most disruptive noise associated with construction activity. The following are potential actions that could be taken to reduce this impact:

a. Reduce time that pile driving noise occurs by drilling through overburden (dry fill) before using pile driver. The added cost of using this technique is not substantial and may be less than that of the normal technique.

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[1]San Francisco Department of Public Works, Standard specifications, Section 108.17, April 1, 1971.

b. Installing a shroud around the impact area of the pile driver would substantially reduce noise generation. Lead-loaded vinyl is an appropriate material.

c. For adjacent buildings with operable windows, noise impact can be reduced by installation of temporary storm windows, providing interior noise reduction of about 15 dBA. Mechanical ventilation may be required in buildings where this technique is used.

These mitigation measures are under consideration by the project sponsor.

VI. ALTERNATIVES TO THE PROPOSED ACTION

A. NO DEVELOPMENT

This alternative would leave the site as it is now. None of the impacts previously mentioned would be exerted. The location of the site, surrounded by high-rise office buildings, makes it prime land for higher-intensity use. It is therefore unlikely that the site would retain its present character for any length of time, even without development of the proposed office building.

If the project were not permitted the developer would probably not exercise his option to buy the property, which would effectively place the site on the market and open to other development schemes.

B. OTHER USES

The range of uses permitted by the City Planning Code in the C-3-0 District is rather limited. Other development possibilities that are permitted include such uses as a hotel, church, school, or theater. No demand or interest by any group has been expressed for locating a church, school, or theater here. The high land values of this C-3-0 District would probably preclude new development of this type.

Only a hotel would produce a financial yield to the City or the project sponsor comparable to that of an office building. Although there is a Holiday Inn on Kearny Street two blocks from the site, the Sansome and Clay area and the services provided nearby are more compatible with office use than with visitor use, due to its proximity to the downtown business center and the surrounding office milieu. Development of a hotel would require on-site parking and would promote further congestion of the area.

A residential complex is located two blocks from the site (R-5-C District), but a Conditional Use Permit would be required for such a use in a C-3-0 District. If the site were developed for residences, approximately 164 housing units could be accommodated. This is based on a mix of 57 studio apartments (500 square feet), 74 one-bedroom (700 square feet) and 33 two-bedroom (900 square feet) units (a mix similar to the Golden Gateway Project) and assumes a 10 to 1 floor area ratio (FAR)[1], the maximum permissible in a R-5 zone. With this type of development 80 off-street parking spaces would be required.

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[1]The ratio of the gross floor area of all buildings on a lot to the area of the lot.

C. LOWER INTENSITY OF DEVELOPMENT

The 18-story option (191,957 square feet) contains the maximum allowable FAR, 18:1, including all applicable bonuses.[1]

Lower-intensity commercial-office development would have less impact on community services and traffic, would involve lower construction costs, and would decrease the amount of revenue to the City compared to the proposed project. It would impose greater economic restraints on the developer, possibly raising rent levels for occupants of the building, since a lower floor area ratio would be expected to increase the land costs per square foot of usable space. Initial plans called for a 13- to 15-story structure. The 15-story option would have 17 percent less FAR than allowable, and the 13-story option, 28 percent less. Such a plan would be more in accord with City Planning Commission policy, which calls for the Portsmouth Corridor to serve as a transitional zone

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[1]City Planning Code, Chapter 11, Section 122.3. Bonuses are granted in the C-3 District for the inclusion of particular features (e.g., plazas, multiple building entrances, side setbacks) into a building's design. These bonuses may be added to the basic FAR to determine the maximum allowable FAR for a building. The primary purposes of these development bonuses are: provision of good access to buildings, and improvement of access to properties, from the various forms of transportation serving the downtown area; improvement of pedestrian movement into and out of buildings, along streets, and between streets; provision of pedestrian amenity by means of ground-level open space; arrangement of buildings to provide light and air to streets and to other properties; and protection and enhancement of views.

between the commercial/office area to the south and the Jackson Square area to the north. A lower building could respect both the high density of the financial district and the human scale of the adjacent Jackson Square area.

The proposed design was chosen over this alternative because it provided a financially more viable project as well as permitting more pedestrian space and commercial amenities in the basement through third floors.

The criteria for the exterior finishing of the building would be as outlined in Guidelines for development: northwest corner of Clay and Sansome Streets, San Francisco Department of City Planning, September 10, 1975 (Appendix C, page 103).

VII. RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The project site is located in an existing commercial-office center, has no present value as a natural environment, and is served by the necessary community services, including public transportation.

Present development of the site would preclude future options for site use; however, no uses that would conform more closely to Comprehensive Plan goals have been proposed. Considerations supporting development at this time, rather than holding the area for future development, are the current demand for office space in San Francisco and inflationary trends, which would escalate costs of comparable development with the passage of time.

VIII. IRREVERSIBLE ENVIRONMENTAL CHANGES RESULTING FROM IMPLEMENTATION OF THE PROJECT

Completion of the proposed project would change the land use of the site from low-density commercial-office use to high-density commercial-office use. This increased density would promote higher-intensity use of the area, which can be considered an irreversible environmental change.

Other irreversible changes include shortened views from adjacent buildings and the use of nonrenewable energy and material resources in the construction and operation of the proposed building.

IX. THE GROWTH-INDUCING IMPACT OF THE PROPOSED ACTION

Construction of additional office space in the area would encourage the continued growth of business-related services such as restaurants, printers, small shops, and banks in downtown San Francisco. It would also contribute to an increased demand for public and private transportation, utilities, and other community services. New housing space is required to the extent that increased employment opportunities cause workers to relocate in San Francisco.

The tenants of the building are expected to represent the expansion of existing San Francisco businesses and the establishment of new offices in San Francisco by other corporations. The specific expected ratio of relocated to new business tenants has not been determined.

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XII. BIBLIOGRAPHY

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APPENDIX A

MICROCLIMATE IMPACT STUDY

TABLE OF CONTENTS

I. INTRODUCTION

Architects, engineers, and city planners designing urban structures are limited by the lack of information on wind effects brought on by the presence of these structures, such as discomfort for pedestrians and wind-caused mechanical problems with doors, windows, and ventilating systems. Once a structure is built, remedial measures (if they exist at all) are usually very expensive.

It is virtually impossible to anticipate, by analysis or intuition, the winds that will be caused by a structure, since they are determined by very complex interactions of forces. Fortunately it is possible to preduct the wind patterns and pressures around structures by testing scale models in a wind tunnel that can simulate natural winds near the ground. This allows the designer to foresee possible environmental and mechanical problems and alleviate them before the building is erected.

Data from wind-tunnel tests can be combined with climatological data to analyze the effect of a proposed structure on pedestrians in terms of human comfort. The frequency distribution of wind strengths at pedestrian level, combined with temperature data and shadow patterns of the proposed structure and its surroundings, can be used to forecast comfort at pedestrian levels.

The research was conducted in two phases. The current wind environment of the site was measured in Phase I. The impact of the wind environment due to construction of the proposed building was then evaluated in Phase II.

II. SUMMARY

A wind-tunnel investigation was carried out on scale models of the site as it exists and as it would exist with the proposed structure. The tests were conducted for northwest and west winds, the most common wind directions in San Francisco.

The tests showed that winds near the site are light to moderate because of the sheltering effect of the nearby high-rise

buildings. The windiest areas are Clay and Merchant Streets; Sansome Street has generally light winds. Completion of the project would modestly increase winds at the site. Principal increases would occur along Clay, Sansome, and Merchant Streets; other areas would be unaffected in general.

The analysis of comfort showed that the area currently has a moderate frequency of discomfort, due to a lack of sunshine and moderate winds.

Construction of the project would increase discomfort levels slightly throughout the site except in Transamerica Redwood Park. Areas along Clay and Merchant Streets would be less comfortable during summer and spring owing to increased winds. The east side of Sansome Street would be less comfortable during summer because of winds and the shadow cast by the proposed building.

III. BUILDING AND SITE DESCRIPTION

The project site is in downtown San Francisco on the northwest corner of Sansome and Clay Streets. It is currently occupied by a four-story office building and two two-story buildings containing restaurants.

The project as tested consisted of one 18-story structure about 249 feet in height, covering most of the site. The proposed building would lie on the northern periphery of the high-rise development of the financial district. The Transamerica Pyramid is on the same block to the northwest. The site is bordered on the north by low buildings at the North Beach-Jackson Square area. East of the site is the Embarcadero Center.

IV. MODEL AND WIND-TUNNEL FACILITIES

Model

A scale model of the proposed building and nearby structures was constructed of urethane foam, using blue-line prints supplied by

the architect. A model of the structures surrounding the area for a distance of several blocks was constructed of polystyrene foam.

The model scale was one inch equals 30 feet. The model of the surrounding city area was built to this scale with building configurations and heights obtained from the Sanborn maps at the San Francisco Department of City Planning.

The model with the proposed buildings was placed on a turntable in the wind tunnel, allowing it to be turned to simulate the various wind directions.

Wind-Tunnel Facilities

The Environmental Impact Planning Corporation boundary layer wind tunnel was designed specifically for testing architectural models. The working section is 7 feet wide, 43 feet long, and 5 feet high. Wind velocities in the tunnel can be varied from 3.5 mph to 13 mph. The flow characteristics around sharp-edged objects such as architectural models are constant over the entire speed range. Low speeds are used for photographing tracer smoke, high speeds for windspeed measurements.

Simulation of the characteristics of the natural wind is facilitated by an arrangement of turbulence generators and roughness upwind of the test section. These allow adjustments in wind characteristics to provide for different scale models and varying terrain upwind of the project site.

Measurements of wind speed around the model are made with a hot-wire anemometer, a device that relates the cooling effect of the wind on a heated wire to the actual wind speed. The flow above the city is measured by a Pitot tube connected to a micromanometer, which measure directly the pressure difference between moving and still air. This pressure difference is then related to the actual wind speed. Flow visualization is achieved by use of floodlit smoke.

V. TESTING METHODOLOGY

Simulation of Flow

The most important factors in assuring similiarity between flow around a model in a wind tunnel and flow around the actual

building are the structure of the approach flow and the geometric similarity between the model and the prototype. A theoretical discussion of the exact criteria for similarity is not included in this paper, but may be found elsewhere (Cermak 1966 or Cermak and Arya 1970).

The variation of wind speed with height (wind profile) was adjusted for the scale of the model and the type of terrain upwind of the site. The profiles used were those generally accepted as adequately describing the flow over that type of terrain (Lloyd 1967).

Testing Procedure

The wind-flow characteristics of the site in its present state were investigated to ascertain the present wind environment. Wind speeds and directions at specified points throughout the site were measured and recorded. Wind direction was measured by releasing smoke at each point and recording the direction in which the smoke traveled. Wind speed measurements were made at the same points, at a scale height of five feet above the ground. A hot-wire anemometer probe is required to make these measurements within a fraction of an inch of the model surfaces. The probe is repeatedly calibrated against the absolute reading of a Pitot tube and micromanometer. Velocity readings close to the model are generally accurate within 10 percent of the true velocity.

A similar technique was used to measure the wind environment with the proposed building in place. Measurements were taken around the building and on the adjacent streets. Before and after each test run, a calibration measurement was made above the model. The purpose of these measurements was to relate the wind-tunnel measurements to actual wind records from U.S. Weather Service wind instrumentation located on the Federal Building at 50 Fulton Street.

VI. TEST RESULTS AND DISCUSSION

Tests of wind speed and wind direction were conducted for northwest and west winds. The proposed building is sheltered by taller buildings from southwest, south, and southeast winds; therefore these wind directions were not tested. North, northeast, and east were excluded for two reasons. First, winds

from all these directions occur only eleven percent of the time. Also, these winds are seldom strong, averaging six miles per hour, while northwesterly winds average fourteen miles per hour.

Measured wind speeds are expressed as percents of the calibration wind speed, which corresponds to the actual wind speed at the San Francisco Weather Station. Thus a plotted value of 52 means that the measured wind speed is expected to be 52% of the wind speed recorded by the Weather Service when winds arefrom that particular direction.

The plotted values can be interpreted in terms of general "windiness" using the scale below. This scale is subjective and is based on information gathered from similar studies in San Francisco.

Velocity	Percent of calibration wind speed
Low	0 - 19
Moderately low	20 - 29
Moderate	30 - 49
Moderately high	50 - 69
High	70 - 100
Very high	100

It should be noted that the plotted values are not actual wind speeds, but ratios. Thus a point having "very high" wind speed would still experience light winds on a near-calm day. Likewise, a point found to have "low" winds could experience significant winds on an extremely windy day.

Wind direction is indicated by an arrow pointing in the direction of flow. Where wind direction fluctuated, two arrows representing the principal flow directions were plotted.

Northwest Wind

Northwest winds occur 12 to 39 percent of the time in San Francisco, depending on the season. (In meteorology, a northwest wind blows from the northwest.) Northwesterly and westerly winds are the most frequent and strongest winds at all seasons in San Francisco. Northwest winds exceed 13 miles per hour 35 percent of the time and 25 miles per hour 3 percent of the time in summer. Wind frequencies and speeds are lower in spring, fall, and winter.

The site is sheltered from northwest winds by the Transamerica Pyramid. Figure 1 shows that winds at the site are greatly disturbed by this structure. West and north of the site, the flow is reversed, moving to the northwest into the wake of the pyramid. Winds are channeled southward along Sansome Street. Wind speeds around the site are moderate or lower, except at the southwest corner of the Sansome-Clay intersection, where they are moderately high.

Construction of the proposed project would change some air-flow patterns near the site. The turbulent winds to the west of the site now flow under the overhang to Sansome Street. Figure 2 shows that wind speeds would in general be modestly increased around the site, with the greatest increases expected on the east side of Sansome Street opposite the site.

West Wind

West winds occur between 15 and 40 percent of the time, depending on the season. West winds exceed 13 miles per hour 29 percent of the time and 25 miles per hour 7 percent of the time in summer. Wind strengths and frequencies are somewhat lower in spring, fall, and winter.

The site is more exposed to winds from the west than from any other direction. Figure 3 shows, however, that wind speeds are moderate or less throughout the study area. Major wind flows are eastward along Clay Street and southward along Sansome. The highest wind speeds are found at the north and south sides of the site.

Figure 4 shows wind conditions after completion of the proposed structure. The channelizing effect of the building would cause winds along Clay and Merchant Streets to increase to moderately high velocities. Along Sansome the flow is disturbed by the wake of the proposed building, resulting in noticeable turbulence. Wind speeds in front of the building on Sansome, however, would not be affected.

VII. COMFORT ANALYSIS

A. ELEMENTS OF COMFORT IN SAN FRANCISCO

The elements that influence comfort are temperature, humidity, sunshine, precipitation, and wind. The relative importance

FIGURE:1 MEASURED WINDSPEEDS AND DIRECTIONS EXISTING PHASE

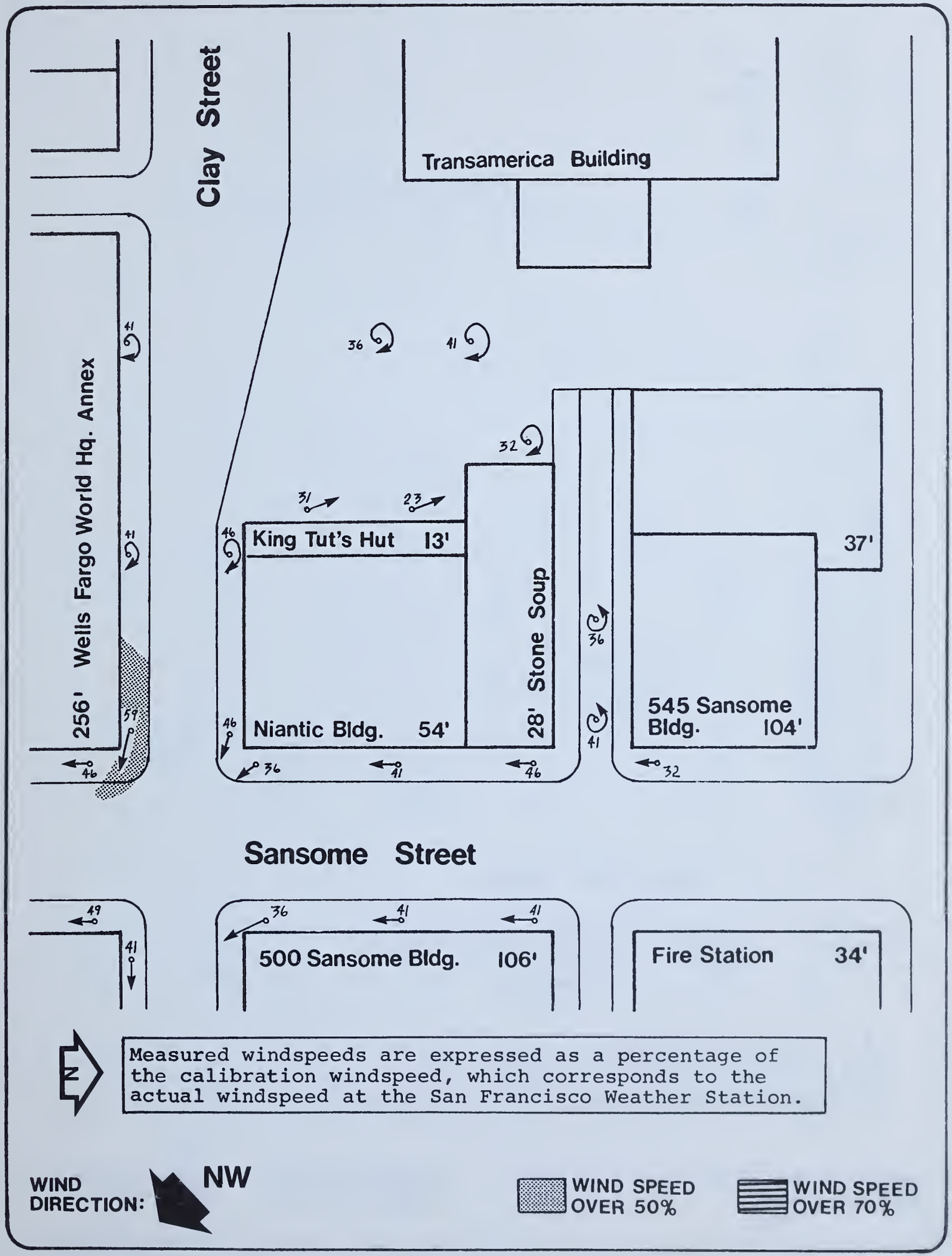


FIGURE:2 MEASURED WINDSPEEDS AND DIRECTIONS PROPOSED PHASE

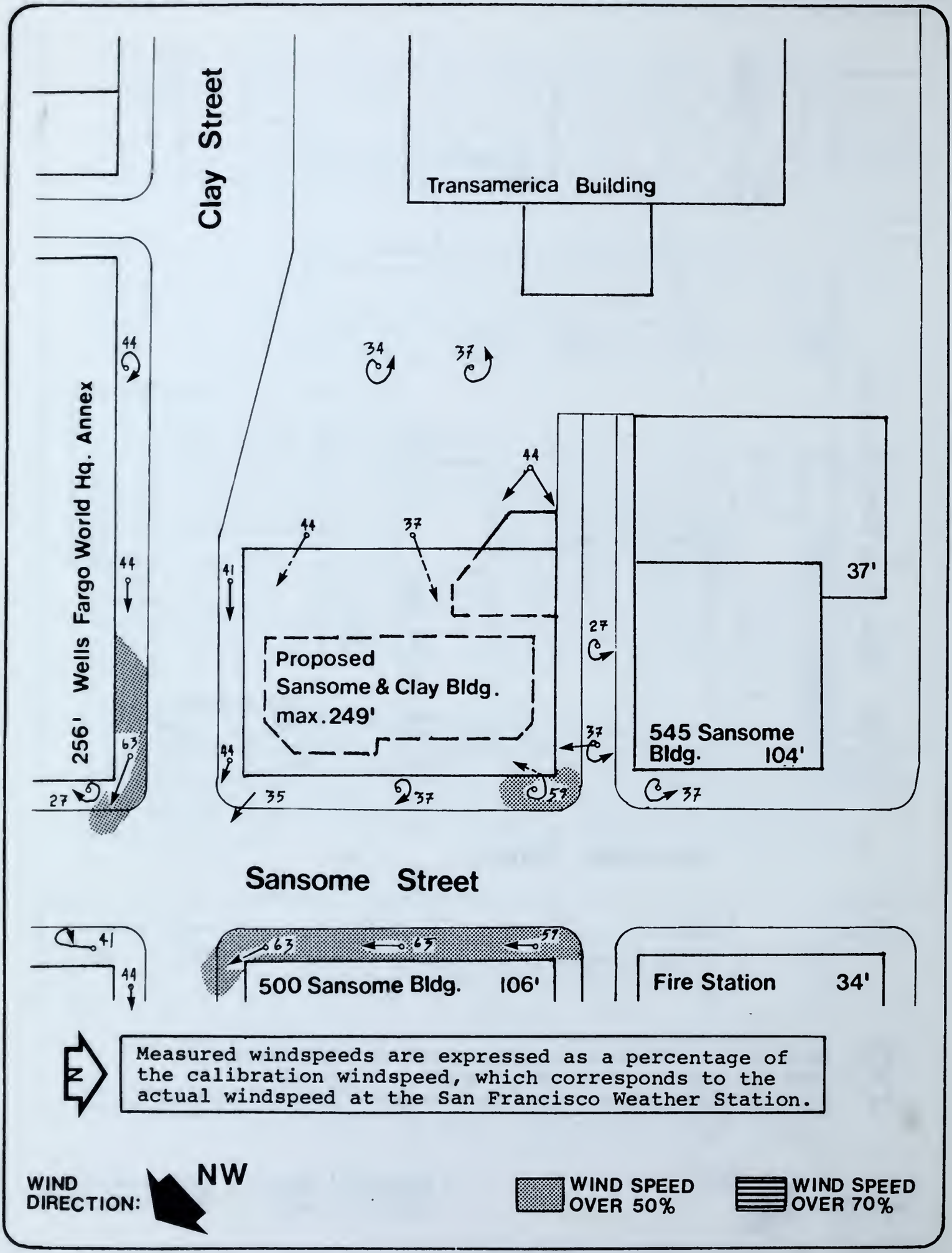


FIGURE:3 MEASURED WINDSPEEDS AND DIRECTIONS EXISTING PHASE

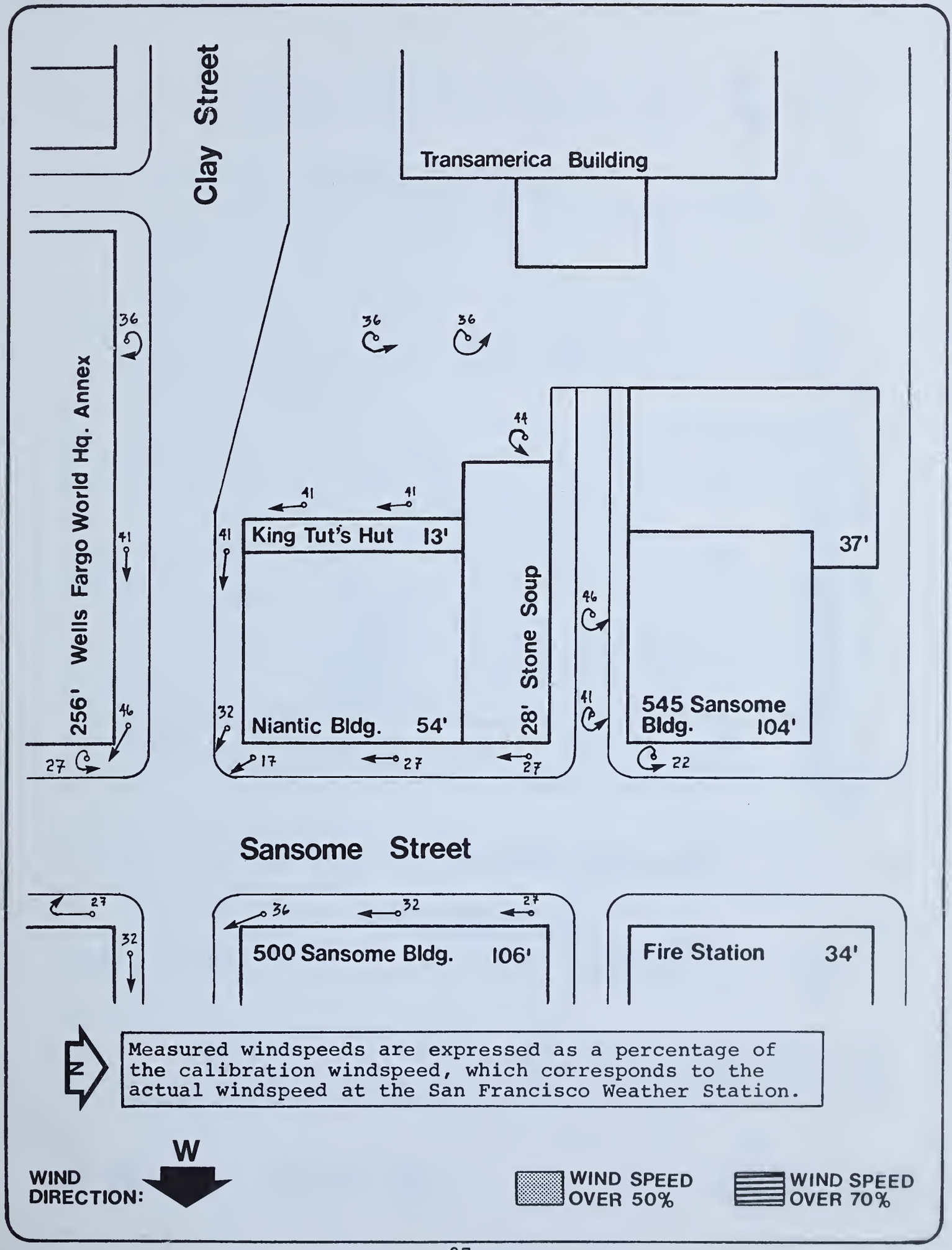
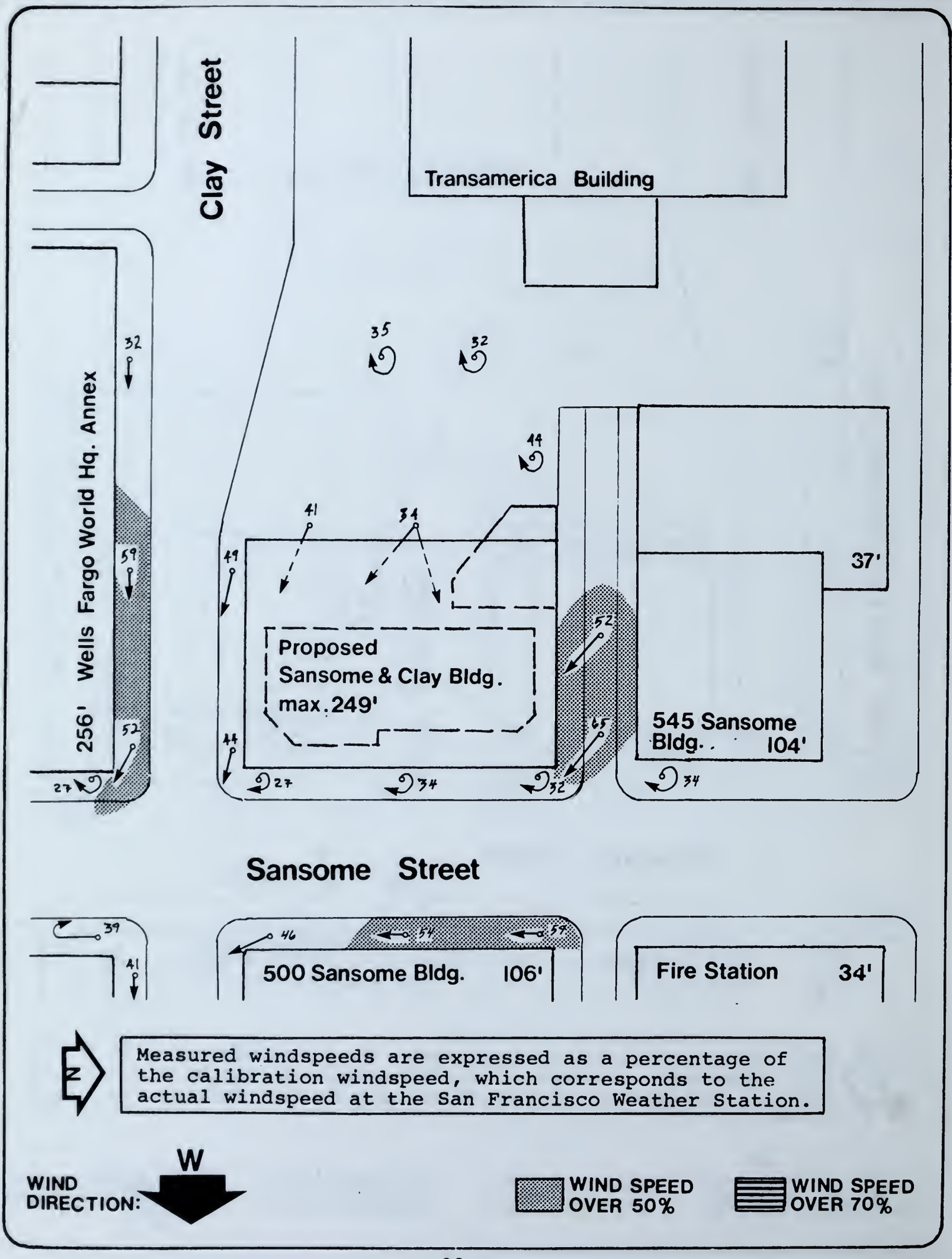


FIGURE:4 MEASURED WINDSPEEDS AND DIRECTIONS PROPOSED PHASE



varies with geographical location and the characteristics of the local climate. For the San Francisco region, the most important factors are temperature, solar radiation, and wind.

Temperatures in San Francisco are moderate owing to the influence of marine air. Temperatures are highest in fall and lowest in winter; both spring and summer are normally cool, with a high frequency of low clouds and fog.

The intensity and frequency of sunshine are normally integrated into a single figure and expressed as "percentage of possible sunshine." San Francisco has two peak periods of sunshine, in April and in September. These months normally correspond to the transition periods between the strong marine airflow of summer and the transient storms of winter.

Wind in San Francisco is strongest in late spring and throughout the summer months, and lightest in winter. Summer winds have a large daily variation, with light winds during night and morning hours and peak winds in the afternoon. Westerly winds are dominant in all months but December and January.

B. MICROCLIMATE ANALYSIS

Sun-Shade Patterns

Sunshine at the site is limited during most of the year by the presence of large structures to the south. During the winter (see Figure) the entire site is virtually without direct sunshine. In spring and fall, short periods of sunshine occur in late morning and in the afternoon along the east side of Sansome Street, while Clay is totally in shade (Figures During the summer, Sansome is sunlit for several afternoon hours and Clay is sunny only in the late afternoon (Figures

Construction of the project would not greatly affect sunshine patterns because the area is dominated by shadows from existing buildings. The most important impacts would occur during fall and spring, when afternoon shadows from the proposed building would shade the area of Sansome near Merchant Street.

The rooftop area would be in sunshine during most of the day in the summer and a few hours a day in the winter.

Winds

Winds at the site are generally light to moderate, reflecting the shelter afforded by surrounding large buildings. The windiest areas are Clay and Merchant Streets.

Construction of the project would cause moderate increases in wind speeds along Clay, Sansome, and Merchant. Other areas would be relatively unaffected.

Comfort

Exact measurements of frequency of discomfort are not possible because of the many complex factors involved, such as the levels of human activity, human clothing levels, and varying perceptions as to what is uncomfortable. Qualitative estimates of relative comfort can be made, however, by examining the distribution of sun and shade and the strength of the wind.

Areas near the site that currently have moderate frequencies of discomfort are Clay and Merchant Streets, owing to a combination of lack of sunshine and moderate winds. Sansome Street has similar discomfort levels in winter, but is more comfortable in spring, fall, and winter, due to the presence of sunlight.

Transamerica Redwood Park is one of the most comfortable areas near the site; winds there are low and sunshine occurs during the afternoon.

Construction of the project would increase discomfort frequencies slightly everywhere near the site except in Transamerica Redwood Park. Along Clay, Sansome, and Merchant Streets, increased winds would cause higher frequencies of discomfort, the largest increase occurring in spring and summer. Along the east side of Sansome Street, discomfort frequencies would be higher due to longer shadows cast by the proposed building. This effect would be greatest in summer and least in winter. The Redwood Park area would not be affected, since neither the wind strengths nor the sun-shade patterns would be significantly affected by the project.

VIII. MITIGATION MEASURES

Design features that improve wind and comfort conditions include provision of substantial variation on the ground level that reduces winds for pedestrians. Also the open nature of the ground floor provides refuge for pedestrians from rain. The absence of right-angle corners on the east side of the ground

floor would reduce buffeting of pedestrians as they walk around the corners from protected areas into windy areas.

Improvement of wind conditions along Merchant Street could be realized by planting large trees or shrubbery.

APPENDIX B

D. K. GOODRICH
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TRANSPORTATION AND TRAFFIC

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SAN FRANCISCO, CA 94122

PHONE
(415) 665-2646

September 24, 1975

EIP
319 11th Street
San Francisco, California 94103

Attention: Mr. Charles Pilcher

Subject: Transportation Analysis for the 505 Sansome Street Building EIR

Gentlemen:

Following is my analysis of pedestrian, transit, and auto conditions, existing and after the project, near the intersection of Sansome and Clay.

The project would house 1,040 (low) to 1,090 (high) employees. Deducting 25 employees estimated to be on the site now, the net increase in employees will be 1,015 (low) to 1,065 (high). It is assumed that current and after-project retail levels are the same, so there will be no net increase in retail activity.

I estimate that 65 percent* of the employees will leave the building during one hour in the afternoon peak, the critical transportation period to which this analysis is addressed:

(low) = 1,015 x 65% = 660 persons/per hour exiting
(high) = 1,065 x 65% = 695 persons/per hour exiting

These pedestrians should disperse equally in the four directions (north, south, east, west) since transit and parking facilities are dispersed. To do so, about one-fourth would use the north and west crosswalks at the Sansome and Clay intersection and one-tenth would use the east and south crosswalks:

(low) 1/4 x 660 = 165 persons use north and west crosswalks
(high) 1/4 x 695 = 175 persons use north and west crosswalks

(low) 1/10 x 660 = 65 persons use east and south crosswalks
(high) 1/10 x 695 = 70 persons use east and south crosswalks

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*Based on general experience at multi-employer office complexes.

Also, two-thirds of the persons exiting the doors on Sansome and Clay would walk south on Sansome toward the intersection:

(low) 2/3 x 660 = 440 persons use sidewalks at doors*
(high) 2/3 x 695 = 465 persons use widewalks at doors

It is estimated that 43 percent of these people will use transit (1**).

(low) .43 x 660 = 285 persons on transit
(high) .43 x 690 = 295 persons on transit

Three hundred people are the equivalent of six bus loads in one hour. Most would be Muni riders; the remainder would be divided among Golden Gate buses and ferries, BART, the Southern Pacific railroad, AC Transit, and Greyhound.

Those not using transit would mostly use autos:

(low) .57 x 660 = 375 persons in autos
(high) .57 x 695 = 395 persons in autos

With 1.3 persons per car (2), 290 to 305 autos would be used in this peak hour.

(low) 375 1.3 = 290 autos used per hour
(high) 395 1.3 = 305 autos used per hour

It is estimated that one-fourth of these autos would use each of the two legs of the intersection after being driven from their remote parking places.

(low) 1/4 x 290 = 70 autos each on Clay and Sansome
(high) 1/4 x 305 = 75 autos each on Clay and Sansome

These autos and pedestrians would be added to those now using the intersection of Clay and Sansome. Following are the counts and measurements taken by EIP between 4 and 5 p.m. on Monday, January 27, 1975:

Autos Counted		Pedestrians Counted	
Eastbound left turn	136	North crosswalk	308
Eastbound straight	780	East crosswalk	632
Northbound straight	400	Sidewalk on Sansome	384
Northbound right turn	192		

*Half would be on Clay and half on Sansome.

**See notes at the end of this appendix.

Physical Dimensions

Traffic lanes on Clay Street	3 lanes
Traffic lanes on Sansome Street	4 lanes
Sidewalk width on Sansome Street	9 feet

The existing volumes and physical dimensions, when analyzed by the capacity index method,* indicate that the intersection is now operating at 56 percent of its capacity in the afternoon peak hour. In the following equations, autos (and pedestrians) moving in the directions listed at the bottom of the preceding page are shown as fractions of total autos (or pedestrians) passing through the intersection. All directions are added; the quantities in brackets are autos and pedestrians using a crosswalk on the same green time.

$$780/(1{,}500 \times 2) + 400/(1{,}500 \times 3) + [(136/1{,}500) \times (308/1{,}000)] + [(192/1{,}500) \times (632/1{,}000)] + .10 =$$
$$.26 + .09 + .03 + .08 + .10 = 56\%$$

After the addition of the project traffic (high), the intersection would be operating at 62 percent of its capacity:

$$(780 + 75^{**})/(1{,}500 \times 2) + (400 + 75^{**})/(1{,}500 \times 3) + \{(136/1{,}500) \times [(308 + 175^{**})/1{,}000]\} + \{(192/1{,}500) \times [(632 + 70^{**})/1{,}000]\} + .10 =$$
$$.29 + .10 + .04 + .09 + .10 = 62\%$$

The sidewalk on Sansome Street in front of the project building exit now carries 0.71 pfm (persons per foot of sidewalk per minute):

$$384/(9 \times 60) = 0.71 \text{ pfm}$$

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*Capacity index is a mathematical approximation of intersection peak-hour traffic flow conditions developed by D. K. Goodrich. It is based on methods reported by the Institute of Traffic Engineers. As the index increases, congestion increases to where, at 100 percent, motorists would have to wait in queue for two or more green signals before clearing an intersection.

**Additional volume due to project (high range).

After adding the project pedestrians, the figure would be 1.14 pfm:

$$384 + (465*/2) /(9 \times 60) = 1.14 \text{ pfm}**$$

Both figures are well below the level of 9 to 10 pfm at which the walking comfort is significantly reduced due to pedestrian crowding (3).

The existing volumes on Sansome and Clay Streets are approximately 7,000 vehicles per day (4). Peak-hour volumes are predicted to remain near their current levels on Clay Street but to double or triple on Sansome at the approach to Clay (5).

The project is estimated to generate demand for 445 to 470 all-day parking spaces. This is based on the generation of 290 (low) to 305 (high) auto trips in one hour; and this hour accounts for 65 percent of the auto population of the project:

(low) 290/.65 = 445 parking spaces
(high) 305/.65 = 470 parking spaces

Sincerely yours,

/s/ D. K. Goodrich
Consulting Engineer
Transportation and Traffic

Revised

*Additional due to larger project.

**Although no pedestrian counts were taken on Clay Street, it is expected that the projected pfm would be similar to that of Sansome.

Notes

1. San Francisco Department of City Planning. "Guidelines for environmental impact review: modal splits of workers in San Francisco." September 16, 1974.

2. San Francisco Department of Public Works. "San Francisco downtown traffic." December 1970, page 7.

3. Fruin, John J. Pedestrian planning and design. New York: Metropolitan Association of Urban Designers and Environmental Planners. 1971.

4. San Francisco Department of Public Works. "Twenty-four hour traffic flow," map. March 1973.

5. Same as Note 2, pages 28 and 35.

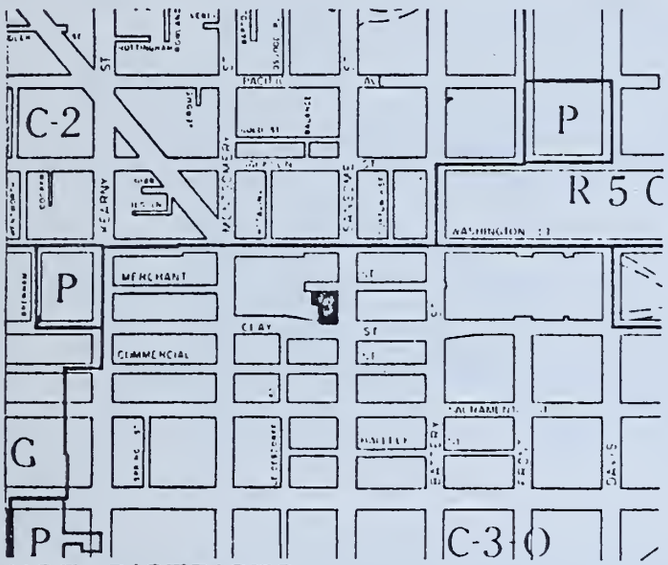
6. McInerney, Henry B., and Petersen, Stephen G. "Intersection capacity measurement through critical movement summations: a planning tool," Traffic Engineering. January 1971.

APPENDIX C

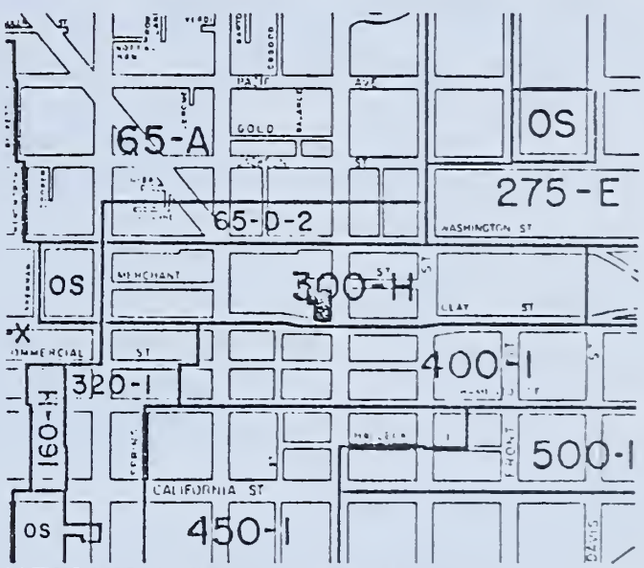
SAN FRANCISCO DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102
558-3056

September 10, 1975

GUIDELINES FOR DEVELOPMENT: NORTHWEST CORNER OF CLAY AND SANSOME STREETS



USE DISTRICTS



HEIGHT & BULK DISTRICTS

SITE IDENTIFICATION

ASSESSOR'S BLOCK/LOT: Lots 3, 4 and 5 in Assessor's Block 207.

SIZE: An "L" shaped parcel having a 122-foot frontage on Sansome Street, an 89.08-foot frontage on Clay Street, and 107.5-foot frontage on Merchant Street, for a total area of approximately 11,426.44 square feet.

PLANNING CODE PROVISIONS:

USE DISTRICT: C-3-O (Downtown Office) district.

HEIGHT/BULK DISTRICT: 300-H (300-foot height limit; above 100 feet in height a maximum length dimension of 170 feet and a maximum diagonal dimension of 200 feet is permitted).

PERMITTED FLOOR AREA: A maximum ratio of gross floor area to lot area of 14.0 to 1 is permitted. However, a 20 percent premium for a corner lot may be added, therefore allowing a total of approximately 191,964 square feet (Section 122.3(d)). In the alternative, the development bonuses described in Section 122.3(b) may be used.

MAXIMUM PERMITTED COVERAGE: 100 percent.

OFF-STREET LOADING SPACES: One off-street freight loading space having a minimum length of 25 feet, a minimum width of 10 feet, and a minimum vertical clearance of 12 feet is required for an office building having between 100,001 and 200,000 square feet of gross floor area. This space must be entirely within the property. For a building larger than 200,000 square feet, a second freight loading space is required with larger dimensions.

REVIEW PROCEDURES:

1. An Environmental Impact Report (EIR) may be required for a proposed office building on this site. The specific requirements should be discussed with the Office of Environmental Review of the Department of City Planning.

2. At the earliest opportunity in the design development stage, the Project Review Section of the Department of City Planning should be contacted to discuss the Department's design concerns regarding the building form and general design of the specific proposal.

3. Any proposal for a project in this block will require mandatory discretionary review under City Planning Commission Resolution No. 6112, adopted June 29, 1967 (copy attached).

DESIGN GUIDELINES

The following considerations are important in the development of plans for an office building on this site:

SITE CONDITIONS:

1. The site is on the northwest corner of Clay and Sansome

Streets, bounded on the north by Merchant Street and on the west by the Transamerica Building's Redwood Park.

BUILDING FORM:

2. Any proposed building on this site should be developed to the property lines along Clay and Sansome Streets to define those street frontages and the corner.

3. An arcade or cantilever along the street frontages at ground level should be provided, extending the width of the sidewalk to accommodate pedestrian traffic.

4. The building should be simple rectilinear shape to soften the existing strong shapes existing to the east and west, and to avoid contributing to a disharmony in the skyline.

5. Use of visually strong, dominant, or contrasting elements in the building facade should be avoided.

6. A plaza area along the western property line would be appropriate to relate to Redwood Park.

USES:

7. Ground level uses which generate pedestrian interest should be developed along Clay and Sansome Streets. Retail shops and eating and drinking places would be desirable. Banks and other institutional uses should be located on a level above or below ground level.

8. Ground level space devoted to the building's lobby should be minimized.

ARCHITECTURAL DESIGN:

9. The building color should be light in value, and the use of dark tinted glass should be minimized. If dark tinted glass is used, it should comprise less than 50 percent of the building facade; a more desirable relationship would be 40 percent glass with 60 percent light-colored facade material. All ground level glazing adjacent to public rights-of-way should be clear, untinted glass.

10. Use of "mirror-glass" on the building facade would not be desirable.

11. Use of a darker material on the building's base might be appropriate to relate to the nearby buildings within the Jackson Square area.

CIRCULATION:

12. Vehicular access for the freight loading dock should be from Merchant Street. The driveway and curb cut should be minimized.

13. Due to the central location of this site in relation to transit service, the size of the site and the congestion of the surrounding streets, off-street parking on this site would not be appropriate.

14. Provisions should be made in the design on the second story for a connection with the possible future development of a second-level pedestrian system. This walkway would generally follow the alignment of Merchant Street and would connect with the Transamerica Building. Provision should also be made to connect this possible future walkway with the site north of Merchant Street.

LANDSCAPING:

15. Street trees should be provided along Sansome and Clay Streets. The species should be in conformity with Department of City Planning policies and guidelines for landscaping.

16. No structures or mechanical equipment should be placed in the sidewalk area that would interfere with proposed sidewalk landscaping.

17. Any plaza area provided should be appropriately landscaped. Benches or seating should be included in any plaza design.